Appendix A

Public Law 92-426
92nd Congress H. R. 2
September 21, 1972

An Act

To establish a Uniformed Services University of the Health Sciences and to provide scholarships to selected persons for education in medicine, dentistry, and other health professions, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That this Act may be cited as the "Uniformed Services Health Professions Revitalization Act of 1972".

Uniformed Services Health Professions Revitalization Act of 1972.
86 Stat. 1064.
10 USC 2101.

SEC. 2. (a) Title 10, United States Code, is amended by adding the following new chapters after chapter 103:

Chapter 104. — UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

Sec.
2112. Establishment.
2113. Board of Regents.
2114. Students: selection; status; obligation.
2115. Graduates: limitation on number permitted to perform civilian Federal service.
2116. Reports to Congress.
2117. Authorization for appropriations.

2112. Establishment

(a) There is hereby authorized to be established within 25 miles of the District of Columbia a Uniformed Services University of the Health Sciences (hereinafter referred to as the "University"), at a site or sites to be selected by the Secretary of Defense, with authority to grant appropriate advanced degrees. It shall be so organized as to graduate not less than 100 medical students annually, with the first class graduating not later than 10 years after the date of the enactment of this chapter.

(b) Except as provided in subsection (a), the numbers of persons to be graduated from the University shall be prescribed by the Secretary of Defense. In so prescribing the number of persons to be graduated from the University, the Secretary of Defense shall, upon recommendation of the Board of Regents, institute actions necessary to ensure the maximum number of first-year enrollments in the University consistent with the academic capacity of the University and the needs of the uniformed services for medical personnel.

(c) The development of the University may be by such phases as the Secretary of Defense may prescribe, subject to the requirements of subsection (a).

Appendix A

2113. Board of Regents

(a) The business of the University shall be conducted by a Board of Regents (hereinafter referred to as the "Board") with funds appropriated for and provided by the Department of Defense. The Board shall consist of—

(1) nine persons outstanding in the fields of health and health education who shall be appointed from civilian life by the President, by and with the advice and consent of the Senate;

(2) the Secretary of Defense, or his designee, who shall be an ex officio member;

(3) the surgeons general of the uniformed services, who shall be ex officio members; and

(4) the person referred to in subsection (d).

(b) The term of office of each member of the Board (other than ex officio members) shall be six years except that—

(1) any member appointed to fill a vacancy occuring before the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term;

(2) the terms of office of the members first taking office shall expire, as designated by the President at the time of the appointment, three at the end of two years, three at the end of four years, and three at the end of six years; and

(3) any member whose term of office has expired shall continue to serve until his successor is appointed.

(c) One of the members of the Board (other than an ex officio member) shall be designated by the President as Chairman. He shall be the presiding officer of the Board.

(d) The Board shall appoint a Dean of the University (hereinafter referred to as the "Dean") who shall also serve as a nonvoting ex officio member of the Boad.

(e) Members of the Board (other than ex officio members) while attending conferences or meetings or while otherwise performing their duties as members shall be entitled to receive compensation at a rate to be fixed by the Secretary of Defense, but not exceeding $100 per diem and shall also be entitled to receive an allowance for necessary travel expenses while so serving away from their place of residence.

(f) The Board, after considering the recommendations of the Dean, shall obtain the services of such military and civilian professors, instructors, and administrative and other employees as may be necessary to operate the University. Civilian members of the faculty and staff shall be employed under salary schedules and granted retirement and other related benefits prescribed by the Secretary of Defense so as to place the employees of the University on a comparable basis with the employees of fully accredited schools of the health professions within the vicinity of the District of Columbia. The

Board may confer academic titles, as appropriate, upon military and civilian members of the faculty. The military members of the faculty shall include a professor of military, naval, or air science as the Board may determine.

(g) The Board is authorized to negotiate agreements with agencies of the Federal Government to utilize on a reimbursable basis appropriate existing Federal medical resources located in or near the District of Columbia. Under such agreements the facilities concerned will retain their identities and basic missions. The Board is also authorized to negotiate affiliation agreements with an accredited university or universities in or near the District of Columbia. Such agreements may include provisions for payments for educational services provided students participating in Department of Defense educational programs. The Board may also, subject to the approval of the Secretary of Defense, enter into an agreement under which the University would become part of a national university of health sciences should such an institution be established in the vicinity of the District of Columbia.

(h) The Board may establish postdoctoral, postgraduate, and technological institutes.

(i) The Board shall also establish programs in continuing medical education for military members of the health professions to the end that high standards of health care may be maintained within the military medical services.

2114. Students: selection: status: obligation.

(a) students at the University shall be selected under procedures prescribed by the Secretary of Defense. In so prescribing, the Secretary shall consider the recommendations of the Board. However, selection procedures prescribed by the Secretary of Defense shall emphasize the basic requirement that students demonstrate sincere motivation and dedication to a career in the uniformed services (as defined in section 1072(1) of this title).

(b) Students shall be commissioned officers of a uniformed service as determined under regulations prescribed by the Secretary of Defense after consulting with the Secretary of Health, Education, and Welfare. Notwithstanding any other provision of law, they shall serve on active duty in pay grade O-1 with full pay and allowances of that grade, but shall not be counted against any prescribed military strengths. Upon graduation they shall be appointed in a regular component, if qualified, unless they are covered by section 2115 of this title. Students who graduate shall be required, except as provided in section 2115 of this title, to serve thereafter on active duty under such regulations as the Secretary of Defense or the Secretary of Health, Education, and Welfare, as appropriate, may prescribe for not less than seven years, unless sooner released. The service credit exclusions specified in section 2126 of this title shall apply to students covered by this section.

(c) A period of time spent in military intern or residency training shall not be creditable in satisfying active duty obligation imposed by this section.

(d) A member of the program who, under regulations prescribed by the Secretary of Defense, is dropped from the program for deficiency in conduct or studies, or for other reasons, may be required to perform active duty in an appropriate military capacity in accordance with the active duty obligation imposed by this section. In no case shall any such member be required to serve on active

duty for any period in excess of a period equal to the period he participated in the program, except that in no case may any such member be required to serve on active duty less than one year.

2115. Graduates: limitation on number permitted to perform civilian Federal service

The Secretary of Defense may allow not more than 20 percent of the graduates of each class at the University to perform civilian Federal service for not less than seven years following the completion of their professional education in lieu of active duty in a uniformed service if the needs of the uniformed services do not require that such graduates perform active duty in a uniformed service and as long as the Secretary of Defense does not recall such persons to active duty in the uniformed services. Such persons who execute an agreement in writing to perform such civilian Federal service may be released from active duty following the completion of their professional education. The location and type of their duty shall be determined by the Secretary of Defense after consultation with the heads of Federal agencies concerned.

2116. Reports to Congress

The Secretary of Defense shall report periodically to the Committees on Armed Services of the Senate and House of Representatives on the feasibility of establishing education institutions similar or identical to the University at any other locations he deems appropriate. The last such report shall be submitted by June 30, 1976.

2117. Authorization for appropriations

There is hereby authorized to be appropriated to the Department of Defense for the planning, construction, development, improvement, operation, and maintenance of the University, and to otherwise accomplish the purposes of this title, for the fiscal year beginning July 1, 1972, the sum of $15,000,000 and for each fiscal year thereafter such sum as may be authorized in the annual military construction authorization Act for such year.

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2128. Members of the program: service credit

Service performed while a member of the program shall not be counted—

(1) in determining eligibility for retirement other than by reason of a physical disability incurred while on active duty as a member of the program; or

(2) in computing years of service creditable under section 205, other than subsection (a)(7) and (8), of title 37.

* * * * * * * * * * * * * * *

Added Pub. L. 92-426, 2(a), Sept. 21, 1972, 86 Stat. 713 et seq.; Pub. L. 95-589, Nov. 4, 1978, 92 Stat. 2512; Pub. L. 96-107, Nov. 9, 1979, 93 Stat. 811 et seq. (Title 10, United States Code, 2112-2117, 2128)

-CITE-
10 USC CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES 01/06/03

-EXPCITE-
TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART III - TRAINING AND EDUCATION
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
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-HEAD-
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

-MISC1-
Sec.
2112. Establishment.
2112a. Continued operation of University.
2113. Administration of University.
2114. Students: selection; status; obligation.
2115. Graduates: limitation on number permitted to perform civilian Federal service.
2116. Military nursing research.
(2117. Repealed.)

AMENDMENTS

1996 - Pub. L. 104-201, div. A, title IX, Sec. 907(a)(2), Sept. 23, 1996, 110 Stat. 2620, added item 2112a.

Pub. L. 104-106, div. A, title VII, Sec. 741(b), title X, Sec. 1072(c)(2), Feb. 10, 1996, 110 Stat. 385, 446, substituted ''Administration of University'' for ''Board of Regents'' in item 2113 and added item 2116.

1990 - Pub. L. 101-510, div. A, title XIV, Sec. 1484(b)(2)(B), Nov. 5, 1990, 104 Stat. 1716, struck out item 2117 ''Authorization for appropriations''.

1983 - Pub. L. 98-94, title XII, Sec. 1268(12)(B), Sept. 24, 1983, 97 Stat. 706, struck out item 2116 ''Reports to Congress''.

1979 - Pub. L. 96-107, title VIII, Sec. 803(c)(3), Nov. 9, 1979, 93 Stat. 812, substituted ''permitted'' for ''electing'' and ''service'' for ''duty'' in item 2115.

-CITE-
10 USC Sec. 2112 01/06/03

-EXPCITE-
TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART III - TRAINING AND EDUCATION
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

-HEAD-
Sec. 2112. Establishment

-STATUTE-
(a) There is hereby authorized to be established within 25 miles of the District of Columbia a Uniformed Services University of the Health Sciences (hereinafter in this chapter referred to as the ''University''), at a site or sites to be selected by the Secretary

of Defense, with authority to grant appropriate advanced degrees. It shall be so organized as to graduate not less than 100 medical students annually.

(b) Except as provided in subsection (a), the numbers of persons to be graduated from the University shall be prescribed by the Secretary of Defense. In so prescribing the number of persons to be graduated from the University, the Secretary of Defense shall institute actions necessary to ensure the maximum number of first-year enrollments in the University consistent with the academic capacity of the University and the needs of the uniformed services for medical personnel.

(c) The development of the University may be by such phases as the Secretary of Defense may prescribe subject to the requirements of subsection (a).

-SOURCE-

(Added Pub. L. 92-426, Sec. 2(a), Sept. 21, 1972, 86 Stat. 713; amended Pub. L. 96-107, title VIII, Sec. 803(a), Nov. 9, 1979, 93 Stat. 811; Pub. L. 96-513, title V, Sec. 511(63), (64), Dec. 12, 1980, 94 Stat. 2925, 2926; Pub. L. 104-106, div. A, title X, Sec. 1072(b)(1), Feb. 10, 1996, 110 Stat. 446; Pub. L. 107-107, div. A, title X, Sec. 1048(e)(8), Dec. 28, 2001, 115 Stat. 1228.)

-MISC1-

AMENDMENTS

2001 - Subsec. (a). Pub. L. 107-107 struck out '', with the first class graduating not later than September 21, 1982'' before period at end.

1996 - Subsec. (b). Pub. L. 104-106 struck out '', upon recommendation of the Board of Regents,'' before ''institute actions necessary''.

1980 - Subsec. (a). Pub. L. 96-513 inserted ''in this chapter'' after ''hereinafter'', and substituted ''September 21, 1982'' for ''10 years after the date of the enactment of this chapter''.

1979 - Subsec. (b). Pub. L. 96-107 inserted provisions respecting the maximum number of first-year enrollments in the University.

EFFECTIVE DATE OF 1980 AMENDMENT

Amendment by Pub. L. 96-513 effective Dec. 12, 1980, see section 701(b)(3) of Pub. L. 96-513, set out as a note under section 101 of this title.

SHORT TITLE

Section 1 of Pub. L. 92-426 provided: ''That this Act (enacting this chapter and chapter 105 of this title) may be cited as the 'Uniformed Services Health Professions Revitalization Act of 1972'.''

-TRANS-

TRANSFER OF FUNCTIONS

For transfer of authority of Board of Regents of Uniformed Services University of the Health Sciences to Secretary of Defense, see section 8091 of Pub. L. 101-511, set out as a note under section 2113 of this title.

-MISC5-

CONTINUATION OF UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

Section 1071 of Pub. L. 104-106, as amended by Pub. L. 104-201,

div. A, title IX, Sec. 907(b)(2), Sept. 23, 1996, 110 Stat. 2620, provided that:

''(a) Policy. - Congress reaffirms -

''(1) the prohibition set forth in subsection (a) of section 922 of the National Defense Authorization Act for Fiscal Year 1995 (Public Law 103-337; 108 Stat. 2829; 10 U.S.C. 2112 note) regarding closure of the Uniformed Services University of the Health Sciences; and

''(2) the expression of the sense of Congress set forth in subsection (b) of such section regarding the budgetary commitment to continuation of the University.

''((b) Repealed. Pub. L. 104-201, div. A, title IX, Sec. 907(b)(2), Sept. 23, 1996, 110 Stat. 2620. See section 2112a(b) of this title.)

''(c) Budgetary Commitment to Continuation. - It is the sense of Congress that the Secretary of Defense should budget for the operation of the Uniformed Services University of the Health Sciences during fiscal year 1997 at a level at least equal to the level of operations conducted at the University during fiscal year 1995.''

Pub. L. 103-337, div. A, title IX, Sec. 922, Oct. 5, 1994, 108 Stat. 2829, as amended by Pub. L. 104-201, div. A, title IX, Sec. 907(b)(1), Sept. 23, 1996, 110 Stat. 2620, provided that:

((a) Repealed. Pub. L. 104-201, div. A, title IX, Sec. 907(b)(1), Sept. 23, 1996, 110 Stat. 2620. See section 2112a(a) of this title.)

''(b) Budgetary Commitment to Continuation. - It is the sense of Congress that the Secretary of Defense should budget for the ongoing operation of the Uniformed Services University of the Health Sciences as an institution of professional education that is vital to the education and training each year of significant numbers of personnel of the uniformed services for careers as uniformed services health care providers.

''(c) GAO Evaluation. - Not later than June 1, 1995, the Comptroller General of the United States shall submit to Congress a detailed report on the Uniformed Services University of the Health Sciences. The report shall include the following:

''(1) A comparison of the cost of obtaining physicians for the Armed Forces from the University with the cost of obtaining physicians from other sources.

''(2) An assessment of the retention rate needs of the Armed Forces for physicians in relation to the respective retention rates of physicians obtained from the University and physicians obtained from other sources and the factors that contribute to retention rates among military physicians obtained from all sources.

''(3) A review of the quality of the medical education provided at the University with the quality of medical education provided by other sources of military physicians.

''(4) A review of the overall issue of the special needs of military medicine and how those special needs are being met by physicians obtained from University and physicians obtained from other sources.

''(5) An assessment of the extent to which the University has responded to the 1990 report of the Inspector General of the Department of Defense, including recommendations as to resolution of any continuing issues relating to management and internal

fiscal controls of the University, including issues relating to the Henry M. Jackson Foundation for the Advancement of Military Medicine identified in the 1990 report.

''(6) Such other recommendations as the Comptroller General considers appropriate.''

F. EDWARD HEAE1BERT SCHOOL OF MEDICINE

Pub. L. 98-94, title XII, Sec. 1265, Sept. 24, 1983, 97 Stat. 704, provided that: ''The School of Medicine of the Uniformed Services University of the Health Sciences shall after the date of the enactment of this Act (Sept. 24, 1983) be known and designated as the 'F. Edward HeAE1bert School of Medicine'. Any reference to such school of medicine in any law, regulation, map, document, or other record of the United States shall after such date be deemed to be a reference to such school of medicine as the F. Edward HeAE1bert School of Medicine.''

-SECREF-

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in section 2173 of this title.

-CITE-

10 USC Sec. 2112a 01/06/03

-EXPCITE-

TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART III - TRAINING AND EDUCATION
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

-HEAD-

Sec. 2112a. Continued operation of University

-STATUTE-

(a) Closure Prohibited. - The University may not be closed.

(b) Personnel Strength. - During the five-year period beginning on October 1, 1996, the personnel staffing levels for the University may not be reduced below the personnel staffing levels for the University as of October 1, 1993.

-SOURCE-

(Added Pub. L. 104-201, div. A, title IX, Sec. 907(a)(1), Sept. 23, 1996, 110 Stat. 2620.)

-MISC1-

PRIOR PROVISIONS

Provisions similar to those in subsec. (a) of this section were contained in Pub. L. 103-337, div. A, title IX, Sec. 922(a), Oct. 5, 1994, 108 Stat. 2829, which was set out as a note under section 2112 of this title prior to repeal by Pub. L. 104-201, Sec. 907(b)(1).

Provisions similar to those in subsec. (b) of this section were contained in Pub. L. 104-106, div. A, title X, Sec. 1071(b), Feb. 10, 1996, 110 Stat. 445, which was set out as a note under section 2112 of this title prior to repeal by Pub. L. 104-201, Sec. 907(b)(2).

-CITE-

-EXPCITE-
TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART III - TRAINING AND EDUCATION
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

-HEAD-
Sec. 2113. Administration of University

-STATUTE-
(a) The business of the University shall be conducted by the Secretary of Defense with funds appropriated for and provided by the Department of Defense. To assist the Secretary in an advisory capacity, there is a Board of Regents for the University. The Board shall consist of -

(1) nine persons outstanding in the fields of health and health education who shall be appointed from civilian life by the President, by and with the advice and consent of the Senate;

(2) the Secretary of Defense, or his designee, who shall be an ex officio member;

(3) the surgeons general of the uniformed services, who shall be ex officio members; and

(4) the person referred to in subsection (d).

(b) The term of office of each member of the Board (other than ex officio members) shall be six years except that -

(1) any member appointed to fill a vacancy occurring before the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term;

(2) the terms of office of the members first taking office shall expire, as designated by the President at the time of the appointment, three at the end of two years, three at the end of four years, and three at the end of six years; and

(3) any member whose term of office has expired shall continue to serve until his successor is appointed.

(c) One of the members of the Board (other than an ex officio member) shall be designated by the President as Chairman. He shall be the presiding officer of the Board.

(d) The Secretary shall appoint a Dean of the University (hereinafter in this chapter referred to as the ''Dean'') who shall also serve as a nonvoting ex officio member of the Board.

(e) Members of the Board (other than ex officio members) while attending conferences or meetings or while otherwise performing their duties as members shall be entitled to receive compensation at a rate to be fixed by the Secretary, but not exceeding $100 per diem and shall also be entitled to receive an allowance for necessary travel expenses while so serving away from their place of residence.

(f)(1) The Secretary, after considering the recommendations of the Dean, shall obtain the services of such military and civilian professors, instructors, and administrative and other employees as may be necessary to operate the University. Civilian members of the faculty and staff shall be employed under salary schedules and granted retirement and other related benefits prescribed by the Secretary so as to place the employees of the University on a comparable basis with the employees of fully accredited schools of

the health professions within the vicinity of the District of Columbia.

(2) The Secretary may confer academic titles, as appropriate, upon military and civilian members of the faculty.

(3) The military members of the faculty shall include a professor of military, naval, or air science as the Secretary may determine.

(4) The limitations in section 5373 of title 5 do not apply to the authority of the Secretary under paragraph (1) to prescribe salary schedules and other related benefits.

(g) The Secretary may negotiate agreements with agencies of the Federal Government to utilize on a reimbursable basis appropriate existing Federal medical resources located in or near the District of Columbia. Under such agreements the facilities concerned will retain their identities and basic missions. The Secretary may negotiate affiliation agreements with an accredited university or universities in or near the District of Columbia. Such agreements may include provisions for payments for educational services provided students participating in Department of Defense educational programs. The Secretary may enter into an agreement under which the University would become part of a national university of health sciences should such an institution be established in the vicinity of the District of Columbia.

(h) The Secretary of Defense may establish the following educational programs at the University:

(1) Postdoctoral, postgraduate, and technological institutes.

(2) A graduate school of nursing.

(3) Other schools or programs that the Secretary determines necessary in order to operate the University in a cost-effective manner.

(i) The Secretary shall also establish programs in continuing medical education for military members of the health professions to the end that high standards of health care may be maintained within the military medical services.

(j)(1) The Secretary also is authorized -

(A) to enter into contracts with, accept grants from, and make grants to the Henry M. Jackson Foundation for the Advancement of Military Medicine established under section 178 of this title, or any other nonprofit entity, for the purpose of carrying out cooperative enterprises in medical research, medical consultation, and medical education;

(B) to make available to the Henry M. Jackson Foundation for the Advancement of Military Medicine, on such terms and conditions as the Secretary determines appropriate, such space, facilities, equipment, and support services within the University as the Secretary considers necessary to accomplish cooperative enterprises undertaken by such Foundation and the University;

(C) to enter into contracts with the Henry M. Jackson Foundation for the Advancement of Military Medicine under which the Secretary may furnish the services of such professional, technical, or clerical personnel as may be necessary to fulfill cooperative enterprises undertaken by such foundation and the University;

(D) to accept, hold, administer, invest, and spend any gift, devise, or bequest of personal property made to the University, including any gift, devise, or bequest for the support of an academic chair, teaching, research, or demonstration project;

(E) to enter into agreements with the Henry M. Jackson

Foundation for the Advancement of Military Medicine, or with any other nonprofit entity, under which scientists or other personnel of the Foundation or other entity may be utilized by the University for the purpose of enhancing the activities of the University in education, research, and technological applications of knowledge; and

(F) to accept the voluntary services of guest scholars and other persons.

(2) The Secretary may not enter into any contract with the Henry M. Jackson Foundation for the Advancement of Military Medicine, or with any other entity, if the contract would obligate the University to make outlays in advance of the enactment of budget authority for such outlays.

(3) Scientists or other medical personnel utilized by the University under an agreement described in clause (E) of paragraph (1) may be appointed to any position within the University and may be permitted to perform such duties within the University as the Secretary may approve.

(4) A person who provides voluntary services under the authority of clause (F) of paragraph (1) shall be considered to be an employee of the Federal Government for the purposes of chapter 81 of title 5, relating to compensation for work-related injuries, and to be an employee of the Federal Government for the purposes of chapter 171 of title 28, relating to tort claims. Such a person who is not otherwise employed by the Federal Government shall not be considered to be a Federal employee for any other purpose by reason of the provision of such services.

-SOURCE-

(Added Pub. L. 92-426, Sec. 2(a), Sept. 21, 1972, 86 Stat. 714; amended Pub. L. 95-589, Nov. 4, 1978, 92 Stat. 2512; Pub. L. 96-513, title V, Sec. 511(64), Dec. 12, 1980, 94 Stat. 2926; Pub. L. 98-36, Sec. 3, May 27, 1983, 97 Stat. 201; Pub. L. 98-132, Sec. 2(b), Oct. 17, 1983, 97 Stat. 849; Pub. L. 99-661, div. A, title V, Sec. 505, Nov. 14, 1986, 100 Stat. 3864; Pub. L. 101-189, div. A, title VII, Sec. 726(a), (b)(1), Nov. 29, 1989, 103 Stat. 1480; Pub. L. 101-510, div. A, title XIII, Sec. 1322(a)(3), Nov. 5, 1990, 104 Stat. 1671; Pub. L. 104-106, div. A, title X, Sec. 1072(a), (b)(2), (c)(1), Feb. 10, 1996, 110 Stat. 446; Pub. L. 106-65, div. A, title XI, Sec. 1108, Oct. 5, 1999, 113 Stat. 778; Pub. L. 106-398, Sec. 1 ((div. A), title X, Sec. 1087(a)(12)), Oct. 30, 2000, 114 Stat. 1654, 1654A-291.)

-MISC1-

AMENDMENTS

2000 - Subsec. (f). Pub. L. 106-398 designated penultimate sentence and last sentence of par. (1) as pars. (2) and (3), respectively, redesignated former par. (3) as (4), and struck out former par. (2) which read as follows: ''The Secretary may exempt, at any time, a physician who is a member of the faculty from the restrictions in subsections (a), (b), and (c) of section 5532 of title 5, if the Secretary determines that such exemption is necessary to recruit or retain well-qualified physicians for the faculty of the University. An exemption granted under this paragraph shall terminate upon any break in employment with the University by a physician of three days or more. An exemption granted under this paragraph to a person shall apply to the retired

pay of such person beginning with the first month after the month in which the exemption is granted. Not more than five exemptions may be in effect under this paragraph at any time.''

1999 - Subsec. (f)(3). Pub. L. 106-65 added par. (3).

1996 - Pub. L. 104-106, Sec. 1072(c)(1), substituted ''Administration of University'' for ''Board of Regents'' as section catchline.

Subsec. (a). Pub. L. 104-106, Sec. 1072(b)(2)(A), substituted ''conducted by the Secretary of Defense'' for ''conducted by a Board of Regents (hereinafter in this chapter referred to as the 'Board')'' and inserted after first sentence ''To assist the Secretary in an advisory capacity, there is a Board of Regents for the University.''

Subsec. (d). Pub. L. 104-106, Sec. 1072(b)(2)(B), substituted ''The Secretary shall appoint'' for ''The Board shall appoint''.

Subsec. (e). Pub. L. 104-106, Sec. 1072(b)(2)(C), struck out ''of Defense'' after ''Secretary''.

Subsec. (f). Pub. L. 104-106, Sec. 1072(b)(2)(D), (F), in par. (1), substituted ''Secretary, after'' for ''Board, after'', ''Secretary so'' for ''Secretary of Defense so'', and ''Secretary may'' for ''Board may'' in two places, and in par. (2), substituted ''Secretary'' for ''Board'' in two places.

Subsec. (g). Pub. L. 104-106, Sec. 1072(b)(2)(E), substituted ''Secretary may negotiate agreements'' for ''Board is authorized to negotiate agreements'', ''Secretary may negotiate affiliation'' for ''Board is also authorized to negotiate affiliation'', and ''Secretary may enter'' for ''Board may also, subject to the approval of the Secretary of Defense, enter''.

Subsec. (h). Pub. L. 104-106, Sec. 1072(a), amended subsec. (h) generally. Prior to amendment, subsec. (h) read as follows: ''The Board may establish postdoctoral, postgraduate, and technological institutes.''

Subsecs. (i), (j). Pub. L. 104-106, Sec. 1072(b)(2)(F), substituted ''Secretary'' for ''Board'' wherever appearing.

1990 - Subsec. (j)(1). Pub. L. 101-510, Sec. 1322(a)(3)(A), struck out ''subject to paragraph (2),'' before ''to make'' in subpar. (B) and before ''to enter'' in subpars. (C) and (E).

Subsec. (j)(2) to (5). Pub. L. 101-510, Sec. 1322(a)(3)(B), (C), redesignated pars. (3) to (5) as (2) to (4), respectively, and struck out former par. (2) which read as follows: ''The authority of the Board under clauses (B), (C), and (E) of paragraph (1) may be exercised only if -

''(A) before the Board enters into any arrangement under which any space, facility, equipment, or support service is made available under clause (B) of such paragraph, before the Board enters into any contract under clause (C) of such paragraph, or before the Board enters into any agreement under clause (E) of such paragraph, it notifies the Committees on Armed Services of the Senate and the House of Representatives in writing of the proposed arrangement, contract, or agreement, as the case may be, the terms and conditions thereof, and, in the case of a proposed agreement under clause (E) of paragraph (1), any appointments proposed to be made under the authority of paragraph (4) in connection with the agreement, and

''(B) a period of fifteen days has elapsed following the date on which the notice is received by such committees.''

1989 - Subsec. (f)(2). Pub. L. 101-189, Sec. 726(a), substituted

''five exemptions'' for ''two exemptions''.

Subsec. (j)(1)(A). Pub. L. 101-189, Sec. 726(b)(1), inserted '', accept grants from, and make grants to'' after ''contracts with'' and substituted ''or any other'' for ''or with any other''.

1986 - Subsec. (f). Pub. L. 99-661 designated existing provisions as par. (1) and added par. (2).

1983 - Subsec. (j). Pub. L. 98-132 inserted ''Henry M. Jackson'' before ''Foundation for the Advancement of Military Medicine'' wherever appearing.

Pub. L. 98-36 added subsec. (j).

1980 - Subsecs. (a) and (d). Pub. L. 96-513 inserted ''in this chapter'' after ''hereinafter''.

1978 - Subsec. (b)(3). Pub. L. 95-589 added par. (3).

EFFECTIVE DATE OF 1980 AMENDMENT

Amendment by Pub. L. 96-513 effective Dec. 12, 1980, see section 701(b)(3) of Pub. L. 96-513, set out as a note under section 101 of this title.

-TRANS-

TRANSFER OF FUNCTIONS

Section 8091 of Pub. L. 101-511 provided that: ''Notwithstanding any other provision of law, all authority of the Board of Regents of the Uniformed Services University of the Health Sciences is hereby transferred to the Secretary of Defense, and the Board hereafter shall be an advisory board to the Secretary of Defense.''

-SECREF-

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in section 2114 of this title.

-CITE-

10 USC Sec. 2114 01/06/03

-EXPCITE-

TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART III - TRAINING AND EDUCATION
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

-HEAD-

Sec. 2114. Students: selection; status; obligation

-STATUTE-

(a) Medical students at the University shall be selected under procedures prescribed by the Secretary of Defense. In so prescribing, the Secretary shall consider the recommendations of the Board. However, selection procedures prescribed by the Secretary of Defense shall emphasize the basic requirement that students demonstrate sincere motivation and dedication to a career in the uniformed services (as defined in section 1072(1) of this title).

(b) Medical students shall be commissioned officers of a uniformed service as determined under regulations prescribed by the Secretary of Defense after consulting with the Secretary of Health and Human Services. Notwithstanding any other provision of law, they shall serve on active duty in pay grade O-1 with full pay and allowances of that grade. Upon graduation they shall be appointed

in a regular component, if qualified, unless they are covered by section 2115 of this title. Medical students who graduate shall be required, except as provided in section 2115 of this title, to serve thereafter on active duty under such regulations as the Secretary of Defense or the Secretary of Health and Human Services, as appropriate, may prescribe for not less than seven years, unless sooner released. Upon completion of, or release from, the active-duty service obligation, a member of the program who served on active-duty for less than 10 years shall serve in the Ready Reserve for the period specified in the following table:

Period of Service on Active Duty	Ready Reserve Obligation
Less than 8 years	6 years
8 years or more, but less than 9	4 years
9 years or more, but less than 10	2 years

The service credit exclusions specified in section 2126 of this title shall apply to students covered by this section.

(c) A period of time spent in military intern or residency training shall not be creditable in satisfying a commissioned service obligation imposed by this section.

(d) A medical student who, under regulations prescribed by the Secretary of Defense, is dropped from the program for deficiency in conduct or studies, or for other reasons, may be required to perform active duty in an appropriate military capacity in accordance with the active duty obligation imposed by this section. In no case shall any such student be required to serve on active duty for any period in excess of a period equal to the period he participated in the program, except that in no case may any such student be required to serve on active duty less than one year.

(e)(1) The Secretary of Defense may enter into agreements with foreign military medical schools for reciprocal education programs under which students at the University receive specialized military medical instruction at the foreign military medical school and military medical personnel of the country of such medical school receive specialized military medical instruction at the University. Any such agreement may be made on a reimbursable basis or a nonreimbursable basis.

(2) Not more than 40 persons at any one time may receive instruction at the University under this subsection. Attendance of such persons at the University may not result in a decrease in the number of students enrolled in the University. Subsection (b) does not apply to students receiving instruction under this subsection.

(3) The Dean of the University, with the approval of the Secretary of Defense, shall determine the countries from which persons may be selected to receive instruction under this subsection and the number of persons that may be selected from each country. The Dean may establish qualifications and methods of selection and shall select those persons who will be permitted to receive instruction at the University. The qualifications established shall be comparable to those required of United States citizens.

(4) Each foreign country from which a student is permitted to receive instruction at the University under this subsection shall reimburse the United States for the cost of providing such instruction, unless such reimbursement is waived by the Secretary of Defense. The Secretary of Defense shall prescribe the rates for

reimbursement under this paragraph.

(5) Except as the Dean determines, a person receiving instruction at the University under this subsection is subject to the same regulations governing attendance, discipline, discharge, and dismissal as a student enrolled in the University. The Secretary may prescribe regulations with respect to access to classified information by a person receiving instruction under this subsection that differ from the regulations that apply to a student enrolled in the University.

(f) In this section, the term ''commissioned service obligation'' means, with respect to an officer who is a graduate of the University, the period beginning on the date of the appointment of the officer in a regular component after graduation and ending on the tenth anniversary of that appointment.

(g) The Secretary of Defense shall establish such selection procedures, service obligations, and other requirements as the Secretary considers appropriate for graduate students (other than medical students) in a postdoctoral, postgraduate, or technological institute established pursuant to section 2113(h) of this title.

(h) A graduate of the University who is relieved of the graduate's active-duty service obligation under subsection (b) before the completion of that active-duty service obligation may be given, with or without the consent of the graduate, an alternative obligation in the same manner as provided in subparagraphs (A) and (B) of paragraph (1) of section 2123(e) of this title or paragraph (2) of such section for members of the Armed Forces Health Professions Scholarship and Financial Assistance program.

-SOURCE-

(Added Pub. L. 92-426, Sec. 2(a), Sept. 21, 1972, 86 Stat. 715; amended Pub. L. 96-107, title VIII, Sec. 803(b), Nov. 9, 1979, 93 Stat. 812; Pub. L. 96-513, title I, Sec. 114, title V, Sec. 511(65), Dec. 12, 1980, 94 Stat. 2877, 2926; Pub. L. 98-525, title XV, Sec. 1535, Oct. 19, 1984, 98 Stat. 2633; Pub. L. 101-189, div. A, title V, Sec. 511(a), Nov. 29, 1989, 103 Stat. 1439; Pub. L. 101-510, div. A, title V, Sec. 533(a), (b), Nov. 5, 1990, 104 Stat. 1564; Pub. L. 103-160, div. A, title VII, Sec. 732(a), Nov. 30, 1993, 107 Stat. 1696; Pub. L. 104-106, div. A, title X, Sec. 1072(b)(3), Feb. 10, 1996, 110 Stat. 446; Pub. L. 104-201, div. A, title VII, Sec. 741(b), Sept. 23, 1996, 110 Stat. 2599; Pub. L. 105-85, div. A, title X, Sec. 1073(a)(38), Nov. 18, 1997, 111 Stat. 1902.)

-MISC1-

AMENDMENTS

1997 - Subsec. (h). Pub. L. 105-85 substituted ''section 2123(e)'' for ''section 2123(e)(1)''.

1996 - Subsec. (e)(1). Pub. L. 104-106 substituted ''The Secretary of Defense'' for ''The Board, upon approval of the Secretary of Defense,''.

Subsec. (h). Pub. L. 104-201 added subsec. (h).

1993 - Subsec. (a). Pub. L. 103-160, Sec. 732(a)(1), substituted ''Medical students'' for ''Students'' in first sentence.

Subsec. (b). Pub. L. 103-160, Sec. 732(a)(2), substituted ''Medical students'' for ''Students'' in two places.

Subsec. (d). Pub. L. 103-160, Sec. 732(a)(3), substituted ''medical student'' for ''member of the program'' in first sentence

and ''any such student'' for ''any such member'' in two places in second sentence.

Subsec. (g). Pub. L. 103-160, Sec. 732(a)(4), added subsec. (g).

1990 - Subsec. (b). Pub. L. 101-510, Sec. 533(b)(1), after fourth sentence inserted provisions relating to the time obligation to be served in the Ready Reserve upon completion of, or release from, the active-duty service obligation for members of the program who served on active duty for less than 10 years.

Pub. L. 101-510, Sec. 533(a), substituted ''seven years'' for ''10 years'' in fourth sentence.

Subsec. (c). Pub. L. 101-510, Sec. 533(b)(2), substituted ''a commissioned service obligation'' for ''an active duty obligation''.

Subsec. (f). Pub. L. 101-510, Sec. 533(b)(3), added subsec. (f).

1989 - Subsec. (b). Pub. L. 101-189 substituted ''10 years'' for ''seven years'' in fourth sentence.

1984 - Subsec. (e). Pub. L. 98-525 added subsec. (e).

1980 - Subsec. (b). Pub. L. 96-513, Sec. 511(65), substituted ''Secretary of Health and Human Services'' for ''Secretary of Health, Education, and Welfare'' wherever appearing.

Pub. L. 96-513, Sec. 114, struck out provision under which officers attending the Uniformed Services University of Health Sciences were not counted against authorized military strengths.

1979 - Subsec. (b). Pub. L. 96-107 substituted ''uniformed'' for ''uniform''.

EFFECTIVE DATE OF 1996 AMENDMENT

Section 741(c) of Pub. L. 104-201 provided that: ''The amendments made by this section (amending this section and section 2123 of this title) shall apply with respect to individuals who first become members of the Armed Forces Health Professions Scholarship and Financial Assistance program or students of the Uniformed Services University of the Health Sciences on or after October 1, 1996.''

EFFECTIVE DATE OF 1993 AMENDMENT

Section 732(b) of Pub. L. 103-160 provided that: ''The amendments made by subsection (a) (amending this section) shall apply with respect to students attending the Uniformed Services University of the Health Sciences on or after the date of the enactment of this Act (Nov. 30, 1993).''

EFFECTIVE DATE OF 1990 AMENDMENT

Section 533(d) of Pub. L. 101-510 provided that: ''The amendment made by subsection (b) (amending this section) shall take effect on December 31, 1991, and shall apply to persons who are first admitted to the Uniformed Services University of the Health Sciences after that date.''

EFFECTIVE DATE OF 1989 AMENDMENT

Section 511(e) of Pub. L. 101-189, as amended by Pub. L. 101-510, div. A, title V, Sec. 533(c), Nov. 5, 1990, 104 Stat. 1564, provided that: ''The amendments made by this section (amending this section and sections 4348, 6959, and 9348 of this title) shall apply to persons who are first admitted to one of the military service academies after December 31, 1991.''

EFFECTIVE DATE OF 1980 AMENDMENT

Amendment by section 114 of Pub. L. 96-513 effective Sept. 15, 1981, but the authority to prescribe regulations under the amendment by Pub. L. 96-513 effective on Dec. 12, 1980, see section 701 of Pub. L. 96-513, set out as a note under section 101 of this

title.

Amendment by section 511(65) of Pub. L. 96-513 effective Dec. 12, 1980, see section 701(b)(3) of Pub. L. 96-513.

-TRANS-

TRANSFER OF FUNCTIONS

For transfer of authority of Board of Regents of Uniformed Services University of the Health Sciences to Secretary of Defense, see section 8091 of Pub. L. 101-511, set out as a note under section 2113 of this title.

-MISC5-

TRANSITION PROVISIONS

Section 741(d)(2) of Pub. L. 104-201 provided that: ''In the case of any person who, as of October 1, 1996, is serving an active-duty service obligation as a graduate of the Uniformed Services University of the Health Sciences or is incurring an active-duty service obligation as a student of the University, and who is subsequently relieved of the active-duty service obligation before the completion of the obligation, the alternative obligations authorized by the amendment made by subsection (b) (amending this section) may be implemented by the Secretary of Defense with the agreement of the person.''

-CITE-

10 USC Sec. 2115 01/06/03

-EXPCITE-

TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART III - TRAINING AND EDUCATION
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

-HEAD-

Sec. 2115. Graduates: limitation on number permitted to perform civilian Federal service

-STATUTE-

The Secretary of Defense may allow not more than 20 percent of the graduates of each class at the University to perform civilian Federal service for not less than seven years following the completion of their professional education in lieu of active duty in a uniformed service if the needs of the uniformed services do not require that such graduates perform active duty in a uniformed service and as long as the Secretary of Defense does not recall such persons to active duty in the uniformed services. Such persons who execute an agreement in writing to perform such civilian Federal service may be released from active duty following the completion of their professional education. The location and type of their duty shall be determined by the Secretary of Defense after consultation with the heads of Federal agencies concerned.

-SOURCE-

(Added Pub. L. 92-426, Sec. 2(a), Sept. 21, 1972, 86 Stat. 716; amended Pub. L. 96-107, title VIII, Sec. 803(c)(1), (2), Nov. 9, 1979, 93 Stat. 812.)

-MISC1-

AMENDMENTS

1979 - Pub. L. 96-107, Sec. 803(c)(2), substituted ''permitted'' for ''electing'' and ''service'' for ''duty'' in section catchline.

Pub. L. 96-107, Sec. 803(c)(1), substituted provisions respecting authority of the Secretary of Defense to allow graduates to perform civilian Federal service and the execution of agreements for such service as prerequisites for release from active duty following completion of education, for provisions relating to limitations on the number of graduates electing to perform civilian Federal duty, agreements respecting such service, and release from active duty upon completion of their education.

-SECREF-

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in section 2114 of this title.

-CITE-

10 USC Sec. 2116 01/06/03

-EXPCITE-

TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART III - TRAINING AND EDUCATION
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

-HEAD-

Sec. 2116. Military nursing research

-STATUTE-

(a) Definitions. - In this section:

(1) The term ''military nursing research'' means research on the furnishing of care and services by nurses in the armed forces.

(2) The term ''TriService Nursing Research Program'' means the program of military nursing research authorized under this section.

(b) Program Authorized. - The Secretary of Defense may establish at the University a program of military nursing research.

(c) TriService Research Group. - The TriService Nursing Research Program shall be administered by a TriService Nursing Research Group composed of Army, Navy, and Air Force nurses who are involved in military nursing research and are designated by the Secretary concerned to serve as members of the group.

(d) Duties of Group. - The TriService Nursing Research Group shall -

(1) develop for the Department of Defense recommended guidelines for requesting, reviewing, and funding proposed military nursing research projects; and

(2) make available to Army, Navy, and Air Force nurses and Department of Defense officials concerned with military nursing research -

(A) information about nursing research projects that are being developed or carried out in the Army, Navy, and Air Force; and

(B) expertise and information beneficial to the encouragement of meaningful nursing research.

(e) Research Topics. - For purposes of this section, military nursing research includes research on the following issues:

(1) Issues regarding how to improve the results of nursing care and services provided in the armed forces in time of peace.

(2) Issues regarding how to improve the results of nursing care and services provided in the armed forces in time of war.

(3) Issues regarding how to prevent complications associated with battle injuries.

(4) Issues regarding how to prevent complications associated with the transporting of patients in the military medical evacuation system.

(5) Issues regarding how to improve methods of training nursing personnel.

(6) Clinical nursing issues, including such issues as prevention and treatment of child abuse and spouse abuse.

(7) Women's health issues.

(8) Wellness issues.

(9) Preventive medicine issues.

(10) Home care management issues.

(11) Case management issues.

-SOURCE-

(Added Pub. L. 104-106, div. A, title VII, Sec. 741(a), Feb. 10, 1996, 110 Stat. 384.)

-MISC1-

PRIOR PROVISIONS

A prior section 2116, added Pub. L. 92-426, Sec. 2(a), Sept. 21, 1972, 86 Stat. 716, directed Secretary of Defense to report periodically to Committees on Armed Services of the Senate and House of Representatives on feasibility of establishing educational institutions similar or identical to University at any other locations he deemed appropriate, with last such report to be submitted by June 30, 1976, prior to repeal by Pub. L. 98-94, title XII, Sec. 1268(12)(A), Sept. 24, 1983, 97 Stat. 706.

-CITE-

10 USC Sec. 2117 01/06/03

-EXPCITE-

TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART III - TRAINING AND EDUCATION
CHAPTER 104 - UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

-HEAD-

(Sec. 2117. Repealed. Pub. L. 101-510, div. A, title XIV, Sec. 1484(b)(2)(A), Nov. 5, 1990, 104 Stat. 1716)

-MISC1-

Section, added Pub. L. 92-426, Sec. 2(a), Sept. 21, 1972, 86 Stat. 716, authorized appropriations for the Uniformed Services University of the Health Sciences.

-CITE-

Department of Defense

DIRECTIVE

NUMBER 5105.45

March 9, 2000

DA&M

SUBJECT: Uniformed Services University of the Health Sciences (USUHS)

(a) DoD Directive 5105.45, subject as above, May 17, 1999 (hereby canceled)
(b) Chapter 104 et seq. of title 10, United States Code
(c) Secretary of Defense Report, "Defense Reform Initiative," November 1997[1]
(d) Program Budget Decision 711R, "Defense Reform Initiative - Office of the Secretary of Defense and the Defense Agencies," December 17, 1997
(e) through (g), see enclosure 1

1. REISSUANCE AND PURPOSE

This Directive reissues reference (a) to:

1.1. Update the mission, policy, organization and management, responsibilities and functions, relationships, and authorities of the USUHS.

1.2. Provide for USUHS governance under reference (b).

1.3. Establish the USUHS Executive Committee, pursuant to the direction of reference (c).

1.4. Designate the Secretary of the Navy as the "DoD Executive Agent" for administrative support of the USUHS, in accordance with reference (d).

1 Availabile at http://www.defenselink.mil/pubs/dodreform/

2. APPLICABILITY

This Directive applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Chairman of the Joint Chiefs of Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the Department of Defense (hereafter referred to collectively as "the DoD Components").

3. DEFINITIONS

3.1. Academic Affairs. Faculty appointments, promotions and organization, awarding of degrees, curriculum design and implementation, academic requirements for admission and graduation, and related matters vital to the academic well-being of the USUHS.

3.2. Uniformed Services. The Army, the Navy, the Air Force, the Marine Corps, the Coast Guard, the Commissioned Corps of the U.S. Public Health Service, and the Commissioned Corps of the National Oceanic and Atmospheric Administration.

4. MISSION

The USUHS shall:

4.1. Educate and train competent medical personnel qualified to serve the needs of the Uniformed Services through providing the highest quality education programs in the health sciences.

4.2. Place high priority on educating and training personnel to meet the combat and peacetime medical needs of the Armed Forces.

4.3. Grant applicable advanced academic degrees; establish postdoctoral and postgraduate programs, and technological institutes; conduct medical readiness training and continuing education for members of the Uniformed Services in the health professions; and prepare individuals for careers in the health professions in the Uniformed Services.

5. POLICY

It is DoD policy that:

5.1. Consistent with the performance of the DoD mission and with established practices covering academic independence and integrity in the fields of medical and health sciences education, the Department of Defense recognizes the unique role of the USUHS Board of Regents in advising the Secretary of Defense. Consistent with applicable law and accomplishment of the DoD mission, the Assistant Secretary of Defense for Health Affairs (ASD(HA)), the USUHS Executive Committee, and the President of the USUHS shall be guided by the advice of the USUHS Board of Regents on academic affairs.

5.2. USUHS funding shall be within the Defense Health Program.

6. ORGANIZATION AND MANAGEMENT

6.1. The USUHS is a joint entity of the three Military Departments, subject to the overall supervision of the ASD(HA) and the management direction of the USUHS Executive Committee, and shall consist of the following:

6.1.1. A Board of Regents that shall be established and operated, in accordance with 5 U.S.C. Appendix (Federal Advisory Committee Act) (reference (e)), and shall consist of members appointed under Section 2113(a), Chapter 104 of 10 U.S.C. (reference (b)).

6.1.2. A President of the USUHS, who shall be the chief executive officer of the USUHS, and who also is the Dean of the USUHS, as described in reference (b), and who shall report to the ASD(HA), through the USUHS Executive Committee.

6.1.3. A Dean of the F. Edward Hebert School of Medicine, who shall function as the chief academic officer of the F. Edward Hebert School of Medicine and report to the President of the USUHS.

6.1.4. A Dean of the Graduate School of Nursing, who shall function as the chief academic officer of the Graduate School of Nursing and report to the President of the USUHS.

6.1.5. Other subordinate positions and elements as are established by the President of the USUHS within authorized resources.

6.1.6. Students selected under procedures prescribed, in accordance with Chapter 104 of reference (b), and graduate students.

6.2. The USUHS Executive Committee is established to provide the supervision and management of the USUHS, pursuant to the Defense Reform Initiative (reference (c)), and consistent with the direction of the Secretary of Defense to reduce the operational and program management responsibilities of the OSD.

6.2.1. The USUHS Executive Committee shall consist of the Surgeons General of the three Military Departments and shall report to the ASD(HA) on USUHS matters.

6.2.2. A Chair shall be designated from among the membership, as mutually determined by the membership.

6.2.3. The President of the USUHS shall provide an Executive Secretary and associated staff support.

6.2.4. The DoD Executive Agent shall be represented on the USUHS Executive Committee by the Surgeon General of the Navy.

7. RESPONSIBILITIES AND FUNCTIONS

7.1. The Assistant Secretary of Defense for Health Affairs, under the Under Secretary of Defense for Personnel and Readiness, shall:

7.1.1. In accordance with DoD Directive 5136.1 (reference (f)), exercise authority, direction and control over the medical personnel, facilities, programs, funding, and associated resources in the Department of Defense as they relate to the USUHS.

7.1.2. Exercise the authorities over the USUHS vested in the Secretary of Defense by Chapter 104 of 10 U.S.C. (reference (b)), except that the authority to appoint the President of the USUHS is reserved to the Secretary of Defense.

7.1.3. Develop policies and issue policy guidelines to ensure the effective integration of USUHS programs and activities in the DoD Health Program. That includes, but is not limited to, the development of DoD Directives, the issuance of DoD Instructions, and OSD-level participation in the Planning, Programming, and Budgeting System process.

7.1.4. Ensure that the advice of the Board of Regents in matters of academic affairs is considered, in accordance with the policy in section 5.1., above.

7.1.5. Ensure that the Board of Regents shall participate in the governance of the USUHS by advising the Secretary of Defense, through the ASD(HA), on academic affairs and on the administration and management of the USUHS.

7.1.6. Ensure that the President of the USUHS shall:

7.1.6.1. Make certain that educational programs leading to a Doctor of Medicine or other advanced degrees in the health professions meet the standards of applicable and recognized, accrediting, licensing, and certifying Agencies.

7.1.6.2. Carry out those responsibilities and functions pertaining to the supervision and management of University programs, activities, personnel, and resources as the ASD(HA) and Executive Committee prescribe.

7.1.7. Ensure that the Dean of the F. Edward Hebert School of Medicine shall develop and administer policies and procedures on the academic affairs of the F. Edward Hebert School of Medicine.

7.1.8. Ensure that the Dean of the Graduate School of Nursing shall develop and administer policies and procedures on the academic affairs of the Graduate School of Nursing.

7.2. The Secretary of the Navy shall serve as the DoD Executive Agent for administrative support of the USUHS, to include budget, personnel, information, facilities, and other resource responsibilities required for the mission of the USUHS.

7.2.1. Civilian personnel authorizations shall be under the purview of the DoD Executive Agent and civilian employees shall be carried on the rolls of the Department of the Navy.

7.2.2. The USUHS funding and personnel requirements shall not be offset against the Navy Surgeon General budget or work-year allocations.

7.3. The Director, Defense Legal Services Agency, shall provide legal advice and services for the USUHS.

7.4. The USUHS Executive Committee, consistent with the policy guidance of the ASD(HA), shall:

7.4.1. Oversee the operation of the USUHS and provide management direction to the President of the USUHS on the day-to-day operation of the USUHS.

7.4.2. Provide guidance to the President of the USUHS and advice to the ASD(HA) on the annual USUHS program and budget submissions.

7.4.3. Provide advice to the ASD(HA) on health policy matters relating to the USUHS.

8. RELATIONSHIPS

8.1. In carrying out the responsibilities and functions of the chief executive officer of the USUHS, the President of the USUHS shall:

8.1.1. Obtain advice from the USUHS Executive Committee and the Board of Regents, as necessary, to assist the President of the USUHS in performing the President's duties.

8.1.2. Coordinate and exchange information and advice with elements of the OSD and the other DoD Components having collateral or related responsibilities.

8.1.3. Make use of established facilities and services in the Department of Defense and other Government Agencies, when practical, to avoid duplication and achieve maximum efficiency and economy.

8.1.4. Consult and coordinate with other Governmental Agencies and non-Governmental agencies on matters for the mission and programs of the USUHS.

8.2. The Heads of the DoD Components shall coordinate with the ASD(HA) on all matters relating to the mission and programs of the USUHS.

9. AUTHORITIES

The President of the USUHS is specifically delegated the authority to:

9.1. Obtain reports, information, advice, and assistance consistent with DoD Directive 8910.1 (reference (g)), as necessary, to carry out assigned responsibilities and functions.

9.2. Communicate directly with appropriate representatives of the DoD Components and other Executive Departments and Agencies, and members of the public, as appropriate, on matters related to the mission and programs of the USUHS.

9.3. Appoint civilian members of the faculty and staff under salary schedules and grant retirement and other related benefits prescribed by the Secretary of Defense so as to place the employees of the USUHS on a comparable basis with the employees of fully accredited schools of the health professions within the vicinity of the District of Columbia, as provided by law (reference (b)).

9.4. Exercise the administrative authorities contained in enclosure 2.

10. EFFECTIVE DATE

This Directive is effective immediately.

John J. Hamre
Deputy Secretary of Defense

Enclosures - 2
- E1. References, continued
- E2. Delegations of Authority

E1. ENCLOSURE 1

REFERENCES, continued

(e) Title 5, United States Code
(f) DoD Directive 5136.1, "Assistant Secretary of Defense for Health Affairs (ASD(HA))," May 27, 1994
(g) DoD Directive 8910.1, "Management and Control of Information Requirements," June 11, 1993

E2. ENCLOSURE 2

DELEGATIONS OF AUTHORITY

E2.1.1. Under the authority vested in the Secretary of Defense, and subject to the authority, direction, and control of the Secretary of Defense, the Under Secretary of Defense for Personnel and Readiness, and the ASD(HA), the President of the USUHS is hereby delegated authority, subject to paragraph E2.1.2., below, as required in the administration and operation of the USUHS, to:

E2.1.1.1. Exercise the powers vested in the Secretary of Defense by 5 U.S.C. 301, 302(b), 3101, and 5107 on the employment, direction, and general administration of USUHS civilian personnel.

E2.1.1.2. Fix rates of pay for wage-rate employees exempted from the "Classification Act of 1949" by 5 U.S.C. 5102 on the basis of rates established under the Federal Wage System. The fixing of such rates shall follow the wage schedule established by the DoD Wage Fixing Authority.

E2.1.1.3. Administer oaths of office to those entering the Executive Branch of the Federal Government, in accordance with 5 U.S.C. 2903, and designate in writing, as may be necessary, officers and employees of the USUHS to perform that function.

E2.1.1.4. Establish a USUHS Incentive Awards Board and pay cash awards to, and incur necessary expenses for the honorary recognition of, civilian employees of the Government whose suggestions, inventions, superior accomplishments, or other personal efforts, including special acts or services, benefit or affect the USUHS or its subordinate activities, in accordance with 5 U.S.C. 4503; Office of Personnel Management (OPM) regulations; and DoD 1400.25-M, "DoD Civilian Personnel Manual (CPM)," Chapter 400, Subchapter 451, "Awards," December 1996, authorized by DoD Directive 1400.25, November 25, 1996.

E2.1.1.5. Maintain an official seal and attest to the authenticity of official USUHS records under that seal.

E2.1.1.6. Establish advisory committees and employ part-time advisors, as approved by the Secretary of Defense, for the performance of USUHS functions,

consistent with the 10 U.S.C. 173, 5 U.S.C. 3109(b), and DoD Directive 5105.4, "Department of Defense Federal Advisory Committee Management Program," September 5, 1989.

E2.1.1.7. In accordance with Executive Order (E.O.) 10450, "Security Requirements for Government Employment," April 27, 1953; E.O. 12333, "United States Intelligence Activities," December 4, 1981; and E.O. 12968, "Access to Classified Information," August 4, 1995; and DoD Directive 5200.2, "DoD Personnel Security Program (DoDSP)," April 9, 1999, as appropriate:

E2.1.1.7.1. Designate any position in the USUHS as a "sensitive" position.

E2.1.1.7.2. Authorize, in case of an emergency, the appointment of a person to a sensitive position in the USUHS for a limited period of time and for whom a full field investigation or other applicable investigation, including the National Agency Check, has not been completed.

E2.1.1.7.3. Initiate personnel security investigations, and, if necessary, in the interest of national security, suspend a security clearance for personnel assigned, detailed to, or employed by the USUHS. Any action under this paragraph shall be taken, in accordance with procedures prescribed in DoD 5200.2-R, "DoD Personnel Security Program," January 1987, authorized by DoD Directive 5200.2, April 9, 1999.

E2.1.1.8. Act as the agent for the collection and payment of employment taxes imposed by Chapter 21 of the Internal Revenue Code of 1954, as amended; and, as such agent, make all determinations and certifications required or provided for under Section 3122 of the Internal Revenue Code of 1954, as amended, and Sections 205(p)(1) and 205(p)(2) of the "Social Security Act," as amended (42 U.S.C. 405(p)(1) and 405(p)(2)), about USUHS employees.

E2.1.1.9. Authorize and approve the following:

E2.1.1.9.1. Temporary duty travel for military personnel assigned or detailed to the USUHS, in accordance with the Joint Federal Travel Regulations (JFTR), Volume 1, "Uniformed Service Members," current edition.

E2.1.1.9.2. Travel for USUHS civilian personnel, in accordance with the Joint Travel Regulations (JTR), Volume 2, "DoD Civilian Personnel," current edition.

E2.1.1.9.3. Invitational travel to non-DoD employees whose

consultative, advisory, or other highly specialized technical services are required in a capacity that is directly related to, or with, USUHS activities, in accordance with the JTR, Volume 2, "DoD Civilian Personnel," current edition.

E2.1.1.9.4. Overtime work for the USUHS civilian personnel, in accordance with 5 U.S.C. Chapter 55, Subchapter V, and applicable OPM regulations.

E2.1.1.10. Approve the expenditure of funds available for travel by military personnel assigned or detailed to the USUHS for expenses incident to attendance at meetings of technical, scientific, professional, or other similar organizations in such instances when the approval of the Secretary of Defense, or designee, is required by 37 U.S.C. 412 and 5 U.S.C. 4110 and 4111.

E2.1.1.11. Develop, establish, and maintain an active and continuing Records Management Program under 44 U.S.C. 3102 and DoD Directive 5015.2, "DoD Records Management Program," April 11, 1997.

E2.1.1.12. Utilize the Government purchase card for making micro-purchases of material and services, other than personal services, for the USUHS, when it is determined more advantageous and consistent with the best interests of the Government.

E2.1.1.13. Authorize the publication of advertisements, notices, or proposals in newspapers, magazines, or other public periodicals, as required for the effective administration and operation of the USUHS, consistent with 44 U.S.C. 3702.

E2.1.1.14. Establish and maintain, for the functions assigned, an applicable publications system for the promulgation of common supply and service regulations, instructions, and reference documents, and changes thereto, under the policies and prescribed procedures in DoD 5025.1-M, "Department of Defense Directives System Procedures," August 1994, authorized by DoD Directive 5025.1, June 24, 1994.

E2.1.1.15. Enter into support and service agreements with the Military Departments, the other DoD Components, and the other Government Agencies, as required for the effective performance of USUHS functions and responsibilities.

E2.1.1.16. Enter into and administer contracts, directly or through a Military Department, a DoD contract administration services component, or other Federal Agency, as applicable for supplies, equipment, and services required to accomplish the mission of the USUHS. To the extent that any law or E.O. specifically limits the exercise of such authority to persons at the Secretariat level, such authority shall be

exercised by the applicable Under Secretary of Defense or Assistant Secretary of Defense.

E2.1.1.17. Establish and maintain appropriate property accounts for the USUHS, and appoint Boards of Survey, approve reports of survey, relieve personal liability, and drop accountability for USUHS property in the authorized property accounts that is lost, damaged, stolen, destroyed, or otherwise rendered unserviceable, in accordance with applicable laws and regulations.

E2.1.1.18. Promulgate the necessary security regulations for the protection of property and places under the jurisdiction of the President of the USUHS, under DoD Directive 5200.8, "Security of DoD Installations and Resources," April 25, 1991.

E2.1.1.19. Exercise the authority delegated to the Secretary of Defense by the Administrator of the General Services Administration for the disposal of surplus personal property.

E2.1.2. The delegations of authority provided by paragraph E2.1.1, above, are also subject to the following, in order of precedence:

E2.1.2.1. The authority, direction, and control of the ASD(HA).

E2.1.2.2. The management direction and control of the USUHS Executive Committee.

E2.1.2.3. Regulations and procedures of the DoD Executive Agent, applicable to the USUHS, under section 7.2. of this Directive, for administration of the USUHS.

E2.1.3. The President of the USUHS may redelegate those authorities, as applicable, and in writing, except as otherwise specifically indicated in paragraph E2.1.1. through subparagraph E2.1.2.3., above, or as otherwise provided by law or regulation.

CHARTER

THE BOARD OF REGENTS
OF THE
UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

A. **Official Designation:** The Advisory Committee shall be known as the Board of Regents of the Uniformed Services University of the Health Sciences (USUHS). As an advisory committee, the Board will be governed by the provisions of the Federal Advisory Committee Act (FACA), the GSA Final Rule (41 C.F.R. Part 101-6), and DoD Directive 5105.4, the "DoD Federal Advisory Committee Management Program."

B. **Objective and Scope of Activity:** To provide advice and guidance to the Secretary of Defense through the Assistant Secretary of Defense for Health Affairs for the operation of the Uniformed Services University of the Health Sciences. To assure that said operation is in the best tradition of academia and in compliance with the appropriate accreditation authorities.

C. **Period of Time Required:** This Committee is established pursuant to 10 U.S.C. 2112 et seq. and exists indefinitely.

D. **Official or Sponsoring Proponent to Whom the Committee Reports:** The Secretary of Defense through the Assistant Secretary of Defense for Health Affairs.

E. **Support Agency:** The Uniformed Services University of the Health Sciences.

F. **Duties and Responsibilities:**

1. The business of the University shall be conducted by the Secretary of Defense through the Assistant Secretary of Defense for Health Affairs and the USUHS Executive Committee with the advice of the Board of Regents (hereinafter referred to as the "Board") with funds appropriated for and provided by the Department of Defense within the Defense Health Program. The Board shall consist of

a. nine persons outstanding in the fields of health and health education who shall be appointed from civilian life by the President of the United States, by and with the advice and consent of the Senate;

b. the Secretary of Defense, or designee, who shall be an ex-officio member;

c. the Surgeons General of the Uniformed Services, who shall be ex-officio members; and

d. the person referred to in subsection (4).

2. The term of office for each member of the Board (other than an ex-officio member) shall be six years except that

a. any member appointed to fill a vacancy occurring before the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term;

b. any member whose term of office has expired shall continue to serve until his successor is appointed.

3. One of the members of the Board (other than an ex-officio member) shall be designated by the President as Chairman and shall be the presiding officer of the Board.

4. The Board shall provide advice regarding the appointment of a President of the University (hereinafter in this charter referred to as the "President") who shall also serve as a non-voting ex-officio member of the Board. The Board shall also provide advice regarding the appointment of a Dean of the Medical School and Dean of the Graduate School of Nursing.

5. Members of the Board (other than ex-officio members) while attending conferences or meetings or while otherwise performing their duties as members shall be entitled to receive compensation at a rate to be fixed by the Secretary of Defense, but not exceeding $100.00 per diem and shall also be entitled to receive an allowance for necessary travel expenses while so serving away from their place of residence.

6. The Board may recommend academic titles, as appropriate, upon military and civilian members of the faculty. The Board may recommend the awarding of appropriate academic degrees to successful candidates.

7. The Board is authorized to recommend negotiation of agreements with agencies of the Federal Government to utilize on a reimbursable basis appropriate existing Federal medical resources located in or near the District of Columbia. Under such agreements the facilities will retain their identities and basic missions. The Board is also authorized to recommend affiliation agreements with an accredited university or universities. Such agreements may include provisions for payments for educational services provided students participating in Department of Defense educational programs.

8. The Board may recommend establishment of postdoctoral, postgraduate, and technological institutes.

9. The Board may recommend establishment of programs in continuing medical education for military members of the health professions to the end that high standards of health care may be maintained within the military medical services.

10. The Board may recommend to the Assistant Secretary of Defense for Health Affairs that the University, upon approval of the Secretary of Defense, may enter into agreements with foreign military medical schools for reciprocal education programs under which students at the University receive specialized military medical instruction at the foreign military medical school and military medical personnel of the country of such medical school receive specialized military medical instruction at the University. Any such agreement may be made on a reimbursable basis or a nonreimbursable basis.

11. In carrying out the specific functions listed above and in performing other activities, the Board shall serve as the primary advisor to the Secretary of Defense, to the Assistant Secretary of Defense (Health Affairs), to the USUHS Executive Committee, and to the President of USUHS concerning academic affairs of the University.

G. **Estimated Annual Operating Costs and Estimated Man-Years:** $186,700.00; 2.2 FTE

H. **Number of Meetings:** This Committee is established by statute, 10 U.S.C. 2112 et seq., and shall meet at least four (4) times per year and as often as the Secretary or Chairperson of the Board shall deem necessary to conduct University business.

I. **Termination Date:** The Committee by statute has no termination date (Cf Sec. 8091, P.L. 101-511, DoD Appropriations Act, 1991).

J. **Date Charter is Filed:** April 4, 2003

Bylaws
of the
Uniformed Services University of the Health Sciences
Board of Regents

Article I

Name

The Advisory Committee shall be known as the Board of Regents of the Uniformed Services University of the Health Sciences (USUHS).

Official Designation

As a federal advisory committee, the Board will be governed by the provisions of the Federal Advisory Committee Act (FACA), the GSA Final Rule (41 C.F.R. Part 101-6), DoD Directive 5105.4, "Federal Advisory Committee Management Program," and DoD Directive 5105.45, "Uniformed Services University of the Health Sciences."

Article II

Purpose and Objective

A. The purpose of the Board of Regents shall be to provide advice and guidance to the Secretary of Defense through the Assistant Secretary of Defense for Health Affairs and also to the USUHS Executive Committee for the operation of the Uniformed Services University of the Health Sciences.

B. To assure that said operation is in the best tradition of academia and in compliance with the appropriate accreditation authorities.

C. Other specific purposes as identified in DoD Directive 5105.45.

Article III

Members
The Board shall consist of:

A. Nine persons, outstanding in the fields of health and health education, who shall be appointed from civilian life by the President of the United States, by and with the advice and consent of the Senate;

B. The Secretary of Defense, or designee, who shall be an ex-officio Member;

C. The Surgeons General of the Uniformed Services, or their designees, who shall be ex-officio Members; and

D. The President/Dean of the University who shall also serve as a non-voting ex-officio Member of the Board.

Term of Office
The term of office for each Member of the Board (other than an ex-officio Member) shall be six years except:

A. Any Member appointed to fill a vacancy, occurring before the expiration of the term for which his predecessor was appointed, shall be appointed for the remainder of such term;

B. Any Member whose term of office has expired shall continue to serve until a successor is appointed. These appointments will be renewed annually on the anniversary of the original appointment date.

Appointment of Chair

One of the Members of the Board (other than ex-officio Members) shall be designated by the President of the United States as Chair and shall be the Presiding Officer of the Board. The term of the Chair shall continue until a successor is appointed.

Selection of Vice-Chair

The Chair shall appoint a person to serve as Vice Chair.

Article IV

Duties and Responsibilities

A. The Board shall advise the Secretary of Defense, through the Assistant Secretary of Defense, regarding the appointment of the President of the University and the appointments of Deans to the School of Medicine and the Graduate School of Nursing, and approve the nomination from the Deans of the Schools of the Department Chairs. (See U.S. Code Title 10, Section 2113, attached.)

B. The Board shall be informed by the President of the University of appointments of associate deans and assistant deans.

C. The Board shall recommend the awarding of appropriate academic degrees to successful candidates.

D. The Board will ensure that the University maintains appropriate accreditation requirements.

E. The Board shall act upon recommendations made by the Committees on Appointments, Promotion, and Tenure.

F. The Board shall act upon recommendations made to establish new academic programs. A reading will occur when a proposal is presented; action will be taken at the next regularly scheduled subsequent meeting.

G. The Board shall perform other duties as deemed appropriate and within its charter.

Article V

Advisors

A. The Deans of the Schools are advisors to the Board.

B. The Commanders of affiliated teaching hospitals are advisors to the Board.

C. A military advisor to the Board will provide guidance from an operational perspective.

D. The Board may invite other individuals to be advisors.

Article VI

Committees

A. Executive Committee of the Board of Regents

Designation

The Board shall designate a body as the Executive Committee. The Executive Committee shall report to the Board.

Purpose

The Committee shall be responsible for conducting Board business between Board meetings. Actions taken by the Committee shall be submitted for ratification at the next regularly scheduled meeting.

Membership

The Committee will be composed of:

a. Chair, Board of Regents
b. Vice Chair, Board of Regents
c. Chair, USU Executive Committee
d. Two members selected by the Board
e. President, USU

Meetings

The Executive Committee of the Board of Regents will meet either at the call of the Chair or at the request of any two members other than the Chair. Meetings may be held in person or via conference call.

B. Ad Hoc Committees

Designation

The Board, as a body, shall designate ad hoc committees as necessary.

Purpose

Each such ad hoc committee shall be responsible for in-depth consideration of assigned Board agenda items and/or special projects between scheduled meetings.

Membership

The Chair of the Board of Regents will appoint ad hoc committee members.

Meetings

Each ad hoc committee will meet either at the call of its Chair, or at the request of any two members other than the Chair of the committee. Meetings may be held in person or via conference call.

Article VII

General Procedures

A. Regular Meetings

(1) The Board will hold at least four (4) meetings in an annual period from October 1 to September 30, or as often as the Secretary of Defense or Chair of the Board shall deem necessary to conduct University business.

(2) Unless otherwise determined by the Board, meetings will be held in the Board of Regents conference room at the University, 4301 Jones Bridge Road, Bethesda, MD 20814.

B. Additional Meetings

(1) Additional meetings will be called by the Executive Secretary upon the direction of the Chair, the President of the University, or written request of three or more Regents.

(2) Additional meetings of the Board will be held at such times and places as will be specified in the notice of the meeting.

C. Notice of Meetings

(1) Notice of all meetings of the Board shall be sent by the Secretary to each Regent by mail, fax, electronic mail (e-mail), or telephone.

(2) The Secretary shall mail a notice not less than fifteen (15) days before any regular meeting. Faxing, e-mailing, or telephoning a notice shall be done not less than seven (7) days before a regular meeting.

(3) The recital by the Secretary in the minutes that notice was given shall be sufficient evidence of the fact.

(4) Public Announcement of the meetings of the full Board will appear in the Federal Register as provided in the Government in the Sunshine Act. (5 U.S.C. 552b(e)(3))

D. Quorum

A majority of all Members will constitute a quorum of the Board. As currently constituted, a quorum means at least eight (8) members must be present in person or via electronic means.

E. Voting

(1) During a meeting, if a quorum is called for by a member and found not to be present, no further business may be transacted.

(2) During a meeting, issues will be determined by voice balloting, unless an individual Member requires a written ballot.

(3) The Chair of the Board is a Member of the voting assembly and has the right to vote as any other Member when the vote is by ballot.

(4) Unless otherwise specified, a simple majority vote will determine matters of issue before the Board. In the event of a tie vote, the proposed resolution is lost.

(5) At the direction of the Chair, action may also be taken by a majority of the Members by notation voting (that is to say by voting on material circulated to the Members individually or serially, or by polling of Members individually or collectively by mail, telephone, fax, e-mail or similar procedure). Such action will be reported by the Secretary at the next Board Meeting.

(6) The Secretary of Defense, or the Secretary's designee, is authorized to vote.

(7) The Surgeons General of the Uniformed Services, or their duly appointed designees, are authorized to vote. The President/Dean of the University is precluded by DoD Directive 5105.45 from voting.

F. Order of Business

The order of business will be at the discretion of the Chair unless otherwise specified by the Board.

G. Rules of Order

In the determination of all questions of parliamentary usage, the decision of the Chair or presiding officer will be based upon the latest available revision of "Robert's Rules of Order."

Article VIII

Amendment of Bylaws

A. Amendments

These Bylaws may be amended at any meeting of the Board of Regents as long as each proposed amendment has been provided to Members at least 60 days before the next scheduled meeting. Amendments will take effect by the affirmative vote of two-thirds (2/3) of the Members present.

Effective Date:

These Bylaws are effective February 6, 2001.

Lonnie R. Bristow, M.D., Chair, Board of Regents

CHARTER

THE EXECUTIVE COMMITTEE OF THE UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

A. Official Designation: The committee shall be known as the Executive Committee of the Uniformed Services University of the Health Sciences. The committee shall be governed by the provisions of Department of Defense Directive 5105.18, "DoD Committee Management Program," February 8, 1999.

B. Objective and Scope of Activity: To provide for the management and supervision of the Uniformed Services University of the Health Sciences. To assure that the operation of the University is in compliance with appropriate Department of Defense Directives, Instructions and Regulations. To ensure the President of the University shall have execution authority direction and control of USUHS and report to the Executive Committee. To facilitate accomplishment of the function's of the ASD(HA), the Surgeons General, and the Executive Agent as described in DoD Directive 5105.45, "Uniformed Services University of the Health Sciences."

C. Period of Time Required: This Committee is established pursuant to Program Budget Decision 711 of December 17, 1997 and will exist until rescinded by the Secretary of Defense.

D. Official of Sponsoring Proponent to Whom the Board Reports: Assistant Secretary of Defense (Health Affairs).

E. Duties and Responsibilities:

1. The business of the University shall be conducted under the management and supervision of the Executive Committee with Defense Health Program and other funds appropriated for and provided by the Department of Defense through the Department of the Navy as the Executive Agent.

2. The Executive Committee shall consist of the Surgeons General of the Military Services. The membership will determine the Chair.

3. The Executive Committee will be guided by the advice of the USUHS Board of Regents on academic affairs.

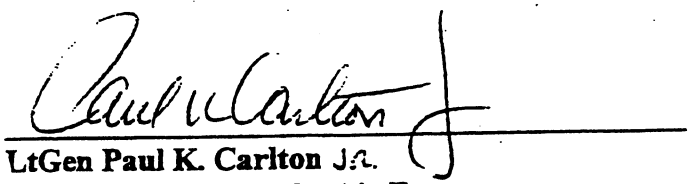
4. The Executive Committee will oversee matters involving programming, budgeting and funding execution. In this regard, budgets approved by the Executive Committee will be presented by the Executive Agent to the Defense Health Program as a part of its responsibility for the planning, programming and budgeting execution system of the USUHS.

F. Signature Authority: The Chair has authority to transmit decisions upon which the Executive Committee has reached unanimity. In the absence of a member of the Executive Committee, the representative of a Surgeon General is authorized to participate in the decision-making process.

G. Number of Meetings: The Executive Committee shall meet at the call of the Chair but not less than quarterly.

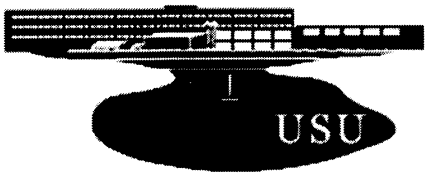
Charter Approved, December 18, 2000:

VADM Richard A. Nelson
Surgeon General of the Navy
Chair



LtGen Paul K. Carlton Jr.
Surgeon General of the Air Force
Member

LTG James B. Peake
Surgeon General of the Army
Member



Strategic Plan

Strategic Plan- 2004
References
History
Current Briefing
Mission and Vision
Guiding Principles

A Message from the President

The University Strategic Plan has become the core document with which the University is formulating its future. In accordance with good management practices, we have aligned our plan with the Department of Defense Medical Health System (MHS) Business Plan.

In April 2001, the University senior staff, teaching hospital representatives, Chair of the Board of Regents, and representatives of the Surgeons General held a very productive three-day retreat to review our strategic plan. We examined our strengths, weaknesses, opportunities, and threats. As a result, we identified seven new goals and over forty objectives, of which 28 were selected to be worked on in FY 2002. Since last year, over 200 people have been working on these objectives to meet our mission of "Learning to care for those in harm's way."

I believe that a useful plan is always a work-in-progress. We will constantly refer to the strategic plan as our beacon, but will adjust a few points of the compass as the University deals with the changing environment.

I invite you to read this plan, coming back occassionally as new objectives and strategies are added. Please feel free to share your thoughtful comments.

This is our strategic plan to guide the University in the 21st century. This strategic plan has no value if it is filed or posted and ignored; it becomes an effective and dynamic plan directed towards the University's vision when we are all involved in its creation and maintenance. Your input is important, welcomed, and appreciated.

James A. Zimble, M.D.
President

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Questions or comments about this site?
Contact our webmaster at: webmaster@usuhs.mil
Last update: 04/02/04

USU Strategic Plan

Report of the USU SP Planning Committee

James G. Smirniotopoulos, M.D., Chair

Feedback Form

USU Strategic Planning Committee

- Greg Argyros
- Pete Esker
- COL Gauseman » Tellitocci
- Neil Grunberg
- Charlie Mannix » Barry Wolcott
- CAPT Jane Mead
- Lee Poth
- COL Serio
- J. Smirniotopoulos, Chair

Feedback Form

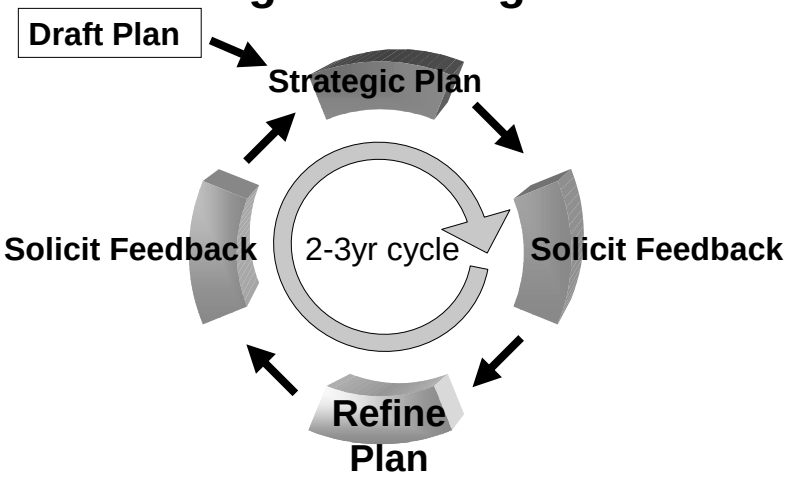
Feedback Form

Definitions for Development of SP

- Mission and Vision:
  - Why do we exist (**Mission**)
  - Who do we want to be (**Vision**)
- Goals
  - Major **results or targets** to achieve the Vision
- Objectives
  - Measurable **quantification** of the Goals
- Strategies
  - Approach to **achieving** the Objectives
- Tactics
  - The **detailed methods** for achieving each Strategy

Feedback Form

Strategic Planning Process

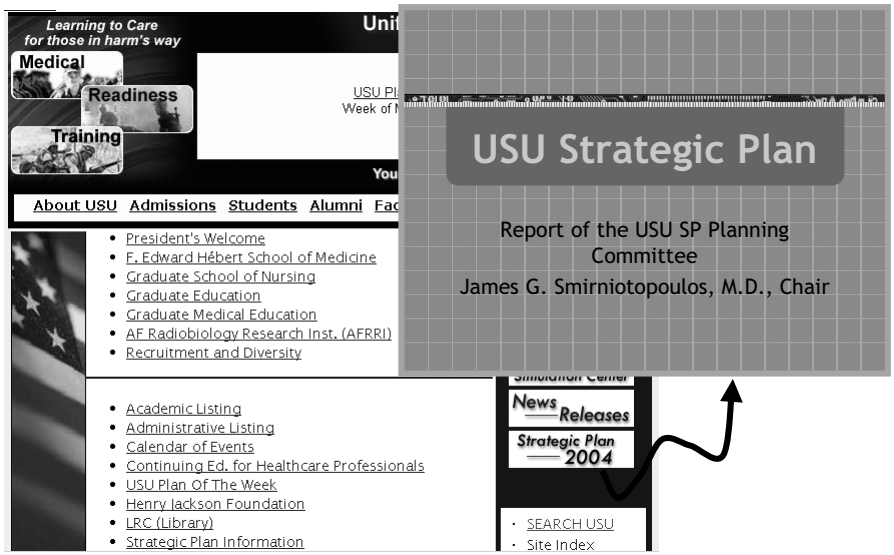


Feedback Form

Tasks Accomplished

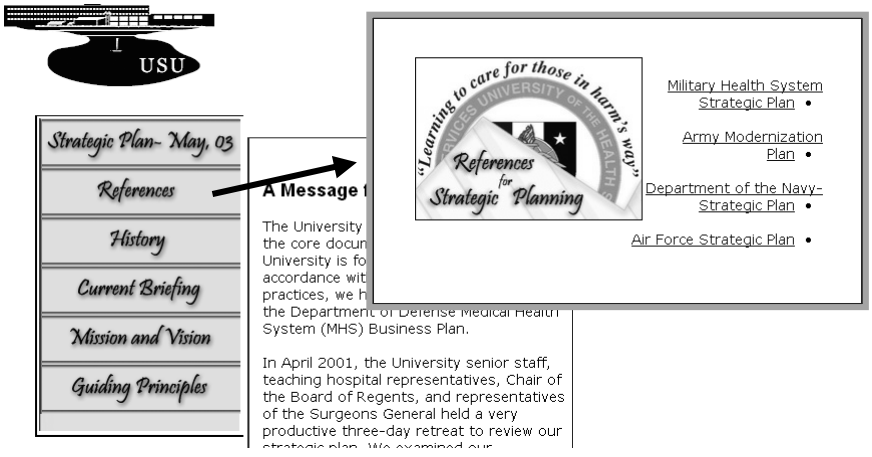
- Website for USU Strategic Plan
  - http://www.usuhs.mil/strat/index.html
- Reconciliation of New SP with Current Plan
- Alignment of New Proposal with DoD HA Plan
  - As available from HA briefing and Website
- Finalize Priorities of the Five Goals
- Finalize Wording of the Goals
- Presentation to USU VP's and HMJ Leaders
- Goal Champions Selected
- Presentation to USU Admin Officers
- Presentation to Faculty Senate

Feedback Form



Feedback Form

USU SP Website



Feedback Form

* Five Goals for USU SP

- **Education**
- **Military Service**
- **Research**
- **Leadership**
- **Stewardship**

* Co-equal priorities, per Dr. Zimble

Feedback Form

Education

Laughlin / Hinton-Walker/ Mead

- To meet the Nation's needs as the preferred source for uniformed healthcare education and training

Feedback Form

Education Objectives: USU

- Will provide outstanding education to our students, focused on Military Readiness and Homeland Defense.
- Will develop and deploy Continuing Health Education and distance learning programs to enhance the competency of Military Healthcare professionals in the Military Unique Curriculum.
- Will coordinate with other agencies to develop and conduct specialized training for health care professionals in:
  - *Disaster and Humanitarian Relief*
  - *Weapons of mass destruction*
  - *Traumatic and Post-traumatic stress*
  - *Preventive Medicine for mission readiness*
  - *Force Health Protection and Healthy Lifestyles*
- Will establish a center for "smart classrooms" taking advantage of new technologies for teaching
- All programs will meet or exceed national standards for accreditation.
- Will partner with senior service colleges to create a School of Leadership and Professional Development.

Education Strategy/metric

- USU SOM graduates will excel during their PGY-1 year
- USU GSN graduates will pass certification exams
- Promote a Community of Scholars to encourage Academic Excellence
- Develop and Deploy Distance Learning Programs
  - GSN, PMB courses
  - Web-based CME (*MedPix)*
- Use Smart Classrooms and New Technologies for Teaching
  - Internet 2
  - Patient Simulation (including the Simulation Center)
- A center for Emerging Infectious Disease (EID) will be developed in conjunction with CDC, USAMRIID and WRAIR
- Will earn the maximum duration of accreditation at each accreditation cycle by Self-Study

Suggested Changes

Feedback Form

Military Service:

Schwartz / Hepler

- To provide graduates, faculty, and staff who serve as experts in the medical response to Disasters, War, and Humanitarian Crises

Feedback Form

Military Service Objectives: USU

- Will produce skilled professionals with special orientation to those aspects of Medicine, Science, and Nursing to support the military and federal healthcare system.
- Emphasize and Participate in the direct care component of Tricare
  - Provide Patient Care Services at MTF's
  - Provide Consultation to DoD and other Federal providers
  - Patient Safety Program
  - Promote Force Health Protection and Healthy Lifestyles
  - Support CDHAM, CCRC
- Provide a military community emphasizing officership

Feedback Form

Military Service Strategy/metric

- Emphasize the direct care component of Tricare
- Provide Patient Care Resources
  - Military treatment facilities
  - Civilian Tx facilities (NIH, Free Clinic)
- Consultation on Difficult Cases
  - MTF's
  - Army Claims Service, etc.
- Develop Military Community
  - Field Exercises emphasizing Military aspects of Healthcare
    - Kerkeshner
    - Bushmaster
  - Award/Retirement Ceremonies
  - Dining in

Feedback Form

Suggested Changes

Feedback Form

Research:

Kaminsky / Jarrett / Schinski

- To be a leader in basic, clinical, and health services research to improve healthcare, to protect, sustain and enhance the fighting force and secure the public's health.

Feedback Form

Suggested Changes

- To be a leader in biomedical science by promoting inquiry, creativity, and innovations for the improvement of healthcare to protect, sustain and enhance the fighting force and secure the public's health

Feedback Form

Research Objectives: USU

- Will emphasize Research and Development relevant to military, federal, and homeland security needs.
- Will develop interdisciplinary programs focused on outcomes research.
- Will develop programs for Pedagogical research.
- Will develop a repository for collecting and analyzing combat casualty data.
- Will emphasize research objectives established by service and Joint Service medical requirement documents.
- Will ensure regulatory compliance in all aspects of healthcare and basic science research.
- Will develop Institutional Research for self study

Feedback Form

Suggested Changes

- To promote excellence and provide tools for innovative biomedical research.
- To provide tools for training our faculty in clinical research and translational research.
- Encourage pairing of our strong programs in interdisciplinary research.
- Will emphasize research objectives established by Service and Joint Service medical requirements.
- To develop programs in teaching research.
- Will ensure regulatory compliance in all aspects of biomedical research.
- Enhanced Research funding for new investigators

Feedback Form

Leadership

Serio /

- To develop and provide uniformed and federal leaders for national healthcare service focused on mission readiness and Homeland Security.

Feedback Form

Leadership Objectives: USU

- Will mentor and train our Students and Faculty to become military and federal healthcare leaders.
- Faculty and Alumni will achieve positions of Leadership in the Department of Defense and in the Federal Government.
- Faculty and Alumni will achieve positions of leadership in professional and scientific organizations.
- Will provide Military Mentorship for Career Development and Promotion
- Outreach to HPSP students

Feedback Form

Suggested Changes

Feedback Form

Stewardship

Rice/Dix/

- To protect and enhance the human and physical resources of the University, optimize productivity, promote a sense of family and community, while emphasizing flexibility in response to changing world conditions.

Feedback Form

Stewardship Objectives: USU

- Will recruit, reward, and retain outstanding and diverse Students, Faculty, and Staff.
- Develop and Maintain connections to our Alumni
- Will work to ensure that everything that we do is characterized by the principles of ethics and accountability.
- Will aggressively seek to secure financial and institutional support to achieve the goals and objectives of this strategic plan as outlined in the above sections on:
  - Education
  - Military Service
  - Research
  - Leadership

Feedback Form

Stewardship Strategy/metric

- Will have a comprehensive faculty and staff development and mentoring program
- Encourage telework and telecommuting to meet Federal local government goals
  - *"the Metropolitan Council of Governments (COG) … declaring that 20% … must engage in telework one or more days a week by 2005"*
  - *"25% of the federal workforce eligible to telework do to the maximum extent possible without diminished employee performance."*
- Obtain state-of-the-art instrumentation for the support of current research future research
- Promote Health and Happiness for faculty, staff, and students
  - Create a "family friendly" environment
  - Promote healthy lifestyles for everyone at USU

Feedback Form

Suggested Changes

Feedback Form

Tasks Ahead

- Concurrence and Consensus from BOR
- Dissemination of New Proposal to Faculty, Students, and Staff
  - Through USU Leadership and VP's (done)
  - Through AO meetings (done)
  - Through Faculty Senate (done)
  - Through Dept Chairs and Activity Heads
  - Through Activity and Dept Staff Meetings

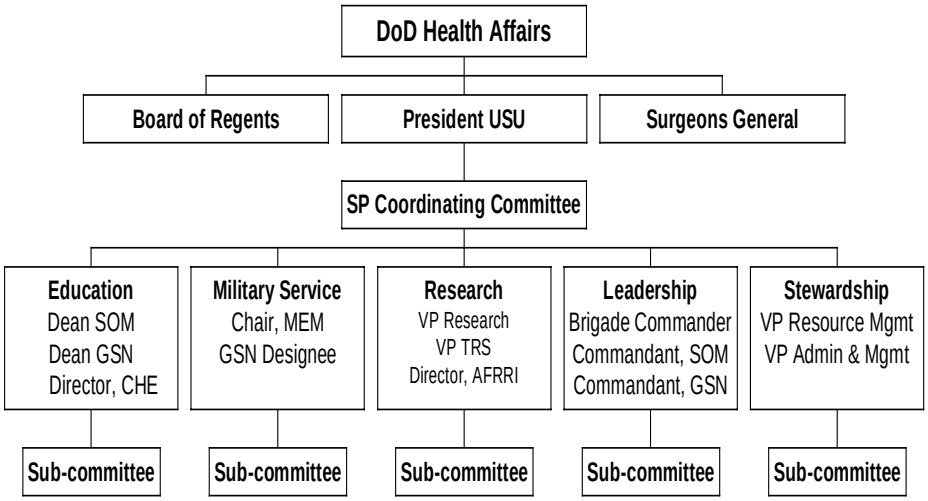
Feedback Form

Tasks Ahead

- Concurrence and Consensus from Faculty and Staff
- Concurrence from Students and Alumni
- Develop Detailed Strategies and Metrics to Achieve Objectives under the leadership of the Goal Tenders

Feedback Form

USU SP: Organizational Chart



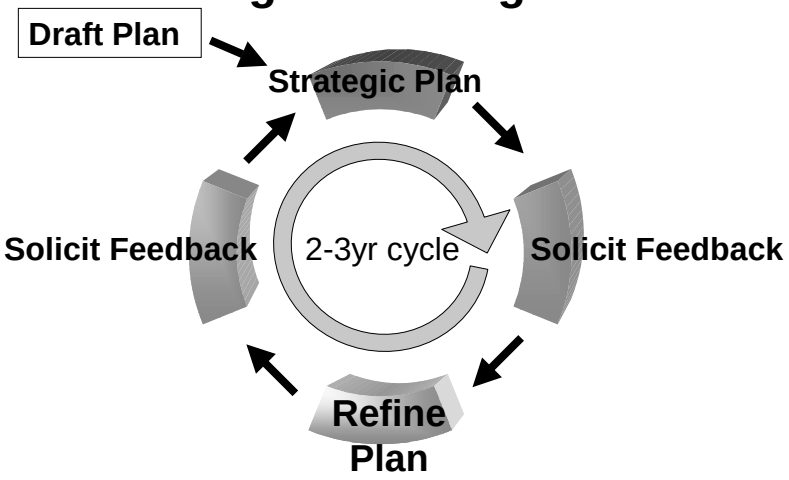
Feedback Form

The End ?

No -
Only The Beginning

Feedback Form

Strategic Planning Process



Feedback Form

Theory and Practice

In Theory … Practice and Theory are the same.

In Practice, they are not.

Yogi Berra

Feedback Form

APPENDIX C

Selected Examples of Billeted and Off-Campus Members of the USU Departments, Programs and Activities Receiving Special Recognition - 2003.

Anatomy, Physiology and Genetics - School of Medicine.

Department Overview. Training the next generation of the military's young doctors requires a firm grounding in anatomy and physiology. The Department of Anatomy, Physiology, and Genetics (APG) employs a *systems biology* approach that aids the student in *not missing the forest for the trees*. This is accomplished through a series of course modules. Students are offered a comprehensive, sequential, intellectually interesting and integrated curriculum for understanding tissue and organ function within a clinically relevant context. ***Introduction to Structure and Function*** introduces the student to cell classification, organelle function and cellular processes, followed by study of the gross anatomy of the human body. An emphasis is placed upon understanding anatomical relationships and the causes and functional consequences of anomalies arising from disease processes. Gross anatomical study of the head and neck region, neuroanatomy, and basic clinical neurology is taught in the second module, ***Clinical Head and Neck and Functional Neuroscience***. Clinical cases are presented and case studies are assigned to students to reinforce their understanding of neurological function. The students return to cellular and subcellular analysis in the third module, ***Structure and Function of Organ Systems***. This module presents an integrated approach to the functions of different cells and organ systems: the functions of muscle; heart; endocrine systems; kidney; respiration; gastrointestinal physiology; hematology; and, reproduction; and, basic principles are once more emphasized to underscore clinical relevance. The educational programs of APG are overwhelmingly lauded by medical and graduate students. In this past year, **Martha Johnson, Ph.D., Associate Professor, APG,** received the Outstanding School of Medicine (SOM) Civilian Educator Award from the SOM Class of 2003, at the 2003 USU Commencement Ceremonies. Also at commencement, **Juanita J. Anders, Ph.D., Associate Professor, APG,** was highly praised by the doctoral students for her excellence in teaching and mentoring, when she received the SOM Outstanding Biomedical Graduate Education Award.

The Department oversees other educational programs for medical and graduate education. In addition to faculty participation in graduate courses offered by the various Doctoral Programs of USU, APG faculty, in a collaborative project with the National Naval Medical Center's (NNMC) Department of Anesthesiology and the USU SOM Department of Anesthesiology, operates the Patient Simulation Laboratory (PSL). The PSL presents patient simulation-based clinical education for USU students and clinicians from local military facilities. To extend the reach of simulation, the PSL recently installed an ultra-high speed *Internet2* Advanced Distance Education Network, throughout USU, with links to the NNMC and the National Library of Medicine. APG faculty are also active members of USU interdisciplinary programs, to include the Molecular and Cell Biology and the Neuroscience Graduate Education Programs. Many graduate students in these programs are undertaking their thesis research in the Department. Future educational initiatives are in the planning stage. ***APG faculty are preparing a Clinical Genetics curriculum that will be an addition to the clinical course instruction of 4th-year medical students***.

Scholarly activities abound. The APG research programs employ a wide range of anatomical, electrophysiological, biochemical, cellular and molecular biological methods to address medical problems associated with neurodegenerative disorders such as: Multiple Sclerosis; Parkinson's Disease; Alzheimer's Disease; Down Syndrome; Canavan Disease; and, central and peripheral nerve injury. APG faculty also have active research programs in hypertension and cardiovascular pathophysiology, neuroimmune responses of gastrointestinal function, and understanding metabolic disorders such as Cystic Fibrosis and Diabetes. Studies within the Department focus on the regulation of neuronal gene expression, biological clock mechanisms, neuroendocrine secretory processes, the role of glial cells in CNS injury and disease, traumatic brain injury, hemorrhagic shock, neuronal regeneration and plasticity. Several programs employ state-of-the-art approaches, including cell therapy using engineered cells, gene therapy using viral and chemical vectors, knock-out and transgenic mouse models, microarray and mass spectrometry technologies. The Department's research funding is supported by the National Institutes of Health, the National Science Foundation, the United States Air Force, the Juvenile Diabetes Foundation, the Cystic Fibrosis Foundation, the Department of Defense/Veterans Head Injury Program, as well as the USU Intramural Grants Program.

***Individual Contributions*.**

Harvey B. Pollard, M.D., Ph.D., Professor and Chair, USU SOM Department of Anatomy, Physiology and Genetics, has established the USU Center for Medical Genomics and Proteomics in the Department of APG**.** By his doing so, APG has become one of ten academic organizations in the United States to win substantial support (12.5 million dollars) from the National Institutes of Health (NIH) for the establishment of a Proteomics Center. The NIH contract has allowed the University to acquire a world-class set of mass spectrometers, as well as support personnel, to form the technical basis for proteomic research in the 21st Century. In terms of NIH funding, this moves APG into the ranks of the top twenty equivalent Departments in United States Medical Schools and provides a crucial research resource to the entire University; USU researchers all benefit from this valuable asset, as well as USU as an institution. The focus of the Center is on lung disease, with a special focus on the inflammatory flagship genetic disease of cystic fibrosis. One citizen in 20 carries one copy of the mutant gene for cystic fibrosis; and, it is the most common autosomal recessive fatal disease, in the United States. Information derived from the Center promises to impact on our understanding of more challenging, but less understood, inflammatory diseases of the lung such as asthma, and inflammatory processes in other parts of the body.

Juanita J. Anders, Ph.D., Associate Professor, and **Kimberly Byrnes, Ph.D., USU SOM Department of Anatomy, Physiology and Genetics, President of the North American Association for Laser Therapy.** Light of specific wavelengths can penetrate to different depths of the body. Through its absorption by a cellular photoreceptor, light can modulate basic cellular functions including energy (ATP) production and DNA, RNA, and protein synthesis. Therefore, light has the potential as a non-invasive therapy for deep tissue repair. Doctors Anders and Byrnes demonstrated that light could increase neuronal survival and regeneration in the injured peripheral nervous system. This work led to a series of experiments on the use of light as a non-invasive treatment for spinal cord injury (SCI). In the United States, approximately 230,000 individuals live with the effects of SCI; and, this number increases by 11,000 each year. SCI causes devastating disabilities due to the inability of axons, within the central

nervous system, to regenerate following an injury. While advances in emergency care and rehabilitation allow many SCI patients to survive, methods for reducing the extent of injury and for restoring function are still limited. Doctors Anders and Byrnes, in collaboration with Doctors Waynant and Ilev, colleagues from the Food and Drug Administration, identified that 810 nm light could penetrate to the depth of the spinal cord. Light treatment of injured spinal cored with an 810 nm, 150 mW (dosage = 1589 J/cm2) diode laser, acted as an immunosuppressant and improved axonal regeneration and functional recovery. This research suggested that light treatment is a novel and effective treatment for SCI; and, in 2003, it led to the filing of a Provisional Patent Application and licensing of this technology to PhotoThera, Incorporated.

Rosemary C. Borke, Vice Chair for Instruction, Professor, USU SOM Department of Anatomy, Physiology and Genetics. Professor Borke's Course, ***Clinical Head and Neck and Functional Neuroscience***, has been a perennial favorite of the first-year medical students. She has made on-going improvements such as the inclusion of additional educational materials that stress clinical correlations, demonstrating the importance of a firm grounding in the basic sciences. Professor Borke has also produced compact disks (CDs) for instructional purposes in the classroom, as well as, for home study.

Sharon L. Juliano, Ph.D., Professor, USU SOM Department of Anatomy, Physiology, and Genetics. There are numerous disorders of neuronal migration into the neocortex. Impaired migration can lead to human dysfunctions that range from epilepsy to schizophrenia. Factors influencing cortical development and subsequent migration are both genetic and environmental; members of Sharon Juliano's laboratory (**Marcin Gierdalski and Sylvie Poluch**) have been using both genetic and epigenetic models to obtain better understanding of the impaired mechanisms of neuronal migration. They previously demonstrated that a short interruption of early cortical development, during gestation, could result in dramatic alterations in radial glial cells, which form an important scaffold for neurons migrating into and forming the cerebral cortex. In collaboration with colleagues from Harvard University, Doctors Juliano and Gierdalski determined that a protein of approximately 50 kDa is an endogenous factor in mammalian cortex, which is capable of reorganizing radial glial cells toward their normal morphology. They further established that the likely endogenous factor is neuregulin and that it acts through erbB receptors. The outcome of their studies may clarify both the mechanisms that produce neuronal migration disorders, during pregnancy, and the potential repair of these disorders by systemically investigating the factors involved in several structural and neurochemical elements that contribute to impaired migration. Their findings were published in a special issue of the Journal, Cerebral Cortex, which commemorated the current status of research on neocortical development.

Ignacio Provencio, Ph.D., Assistant Professor, USU SOM Department of Anatomy, Physiology and Genetics (APG); Mark D. Rollag, Ph.D., Professor, USU SOM Department of APG; Maria Castrucci, Ph.D., USU SOM Department of APG, and, **Guisen Jiang, M.D., Research Assistant Professor.** Jet lag is an extreme example of what happens when our daily biological clock is not synchronized to local time. Light perceived through the eyes is the primary mechanism by which the internal clock is reset. In 2002, Doctors Ignacio Provencio, Mark Rollag, and Maria Castrucci, from the Department of Anatomy, Physiology and Genetics, identified a new photosensory system in the

mammalian eye, which is responsible for resetting the internal 24-hour (circadian) clock. This discovery was recognized by the prestigious Journal, Science, as one of the *Top Ten Scientific Breakthroughs of 2002*. Thus, like the ear, which is required for hearing and balance, the eye also has a dual sensory function: vision and circadian clock resetting. The clock resetting apparatus of the eye is composed of a *photoreceptive net* of cells that contain a novel light-sensitive protein named melanopsin. Melanopsin was initially discovered in frog skin at USU, in 1998, by Doctors Provencio, Rollag, and Guisen Jiang, which in turn, paved the way to the discovery of the *photoreceptive net* in mammals. This past year, these USU investigators, in collaboration with colleagues from The Scripps Research Institute, the Genomics Institute of the Novartis Research Foundation, and Washington University, showed that melanopsin-containing cells of the *photoreceptive net* work in conjunction with the well-known rod and cone visual photoreceptors of the retina to reset the clock. This apparent integration of visual and non-visual light signaling, within the retina, has forced investigators to rethink how the retina processes some light information. Understanding how our internal daily clocks are reset will provide the basis for future pharmacologic or phototherapeutic strategies to ameliorate internal timing disturbances (chronopathologies) such as jet lag. In an age when the men and women of our military are immediately deployed into theaters of operation many time zones away, developing such strategies will prove to be extremely useful.

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Biochemistry and Molecular Biology - School of Medicine.

***Individual Contributions*.**

Paul D. Rick, Ph.D., Professor and Chair, USU SOM Department of Biochemistry and Molecular Biology, directed his long-term research interests at determining the mechanisms involved in the biogenesis and assembly of the outer membrane of Gram-negative bacteria. More specifically, he is interested in defining the genes and enzymes involved in the assembly of enterobacterial common antigen (ECA), a cell-surface glycolipid that is present in the outer membrane of all bacteria belonging to the family, *Enterobacteriaceae* (Gram-negative enteric bacteria). Using a combined genetic and biochemical approach, Doctor Rick has succeeded in defining many of the genes and enzymes involved in ECA assembly. Although the ECA was discovered, in 1962, its function has not been defined despite the efforts of many investigators. However, the occurrence of ECA only in Gram-negative enteric bacteria suggests that it serves an important function for these organisms. Indeed, data obtained in Doctor Rick's laboratory strongly suggests that it is required for the growth and survival of these organisms in their normal ecological niche; i.e., the gastrointestinal tract of animals and man. His research is funded by a grant from the National Institutes of Health; and, he continues to serve on the Editorial Boards of several scientific journals.

Peter D'Arpa, Ph.D., Assistant Professor, USU SOM Department of Biochemistry and Molecular Biology, studies *topoisomerase I*, an enzyme that is the molecular target of a widely used class of anti-cancer drugs. His laboratory studies how anti-cancer drugs affect *topoisomerase I* and lead to the elimination of cancer cells. Other research explores the molecular cell biology of *topoisomerase I* and *topoisomerase I-interacting proteins*. The goal of his research is to characterize the cellular functions of *topoisomerase I* and proteins that interact with it to ultimately improve therapies utilizing *topoisomerase I-targeting* anti-cancer drugs.

Saibal Dey, Ph.D., Assistant Professor, USU SOM Department of Biochemistry and Molecular Biology, works on a human protein (P-glycoprotein) found in the cell membranes of cancerous as well as normal cells. This protein removes structurally unrelated hydrophobic compounds from cells by acting as a pump. Since most of the anti-cancer and anti-microbial drugs are hydrophobic in nature, this protein prevents them from reaching their targets. Doctor Dey has been working on the mode of action of this protein and on the molecular mechanism by which this protein can be inactivated using pharmacological agents. The outcome of his study could improve the availability of chemotherapeutic drugs at their site of action and aid in the treatment of cancer and microbial diseases. Doctor Dey and colleagues published: *Functional Characterization of Glycosylation Deficient Human P-glycoprotein Using a Vaccinia Virus Expression System* in the Journal of Membrane Biology, Volume 173, pages 203-214; and, he also wrote a review on *Biricodar* in Current Opinion in Investigational Drugs, Volume 3, pages 818-823. During the past year, Doctor Dey was awarded a five-year RO1 grant from the National Institutes of Health for his studies on P-glycoprotein.

Teresa M. Dunn, Ph.D., Professor and Vice Chair, USU SOM Department of Biochemistry and Molecular Biology, studies complex lipid molecules in yeast that are found in cell membranes. Similar compounds in humans are found in the membranes of the brain and nerves. The human brain has several hundred varieties of these compounds. Several gene products (both enzymes and regulatory proteins) are required to synthesize these complex molecules. The discovery of these genes and their function in producing these molecules in yeast is made possible by genetic methods developed in Doctor Dunn's laboratory. This work will likely suggest what processes in the nerves or brain are affected or regulated by these molecules. Using a powerful genetic screen devised in her laboratory, many of the genes encoding the sphingolipid biosynthetic enzymes have been identified. During the past year, a grant to characterize the microsomal fatty acid elongating enzymes was awarded to Doctor Dunn by the National Science Foundation. Doctor Dunn continues to serve as a member of the Metabolic Biochemistry Review Panel for the National Science Foundation.

David A. Grahame, Ph.D., Associate Professor, USU SOM Department of Biochemistry and Molecular Biology, studies metal-containing enzymes in the Archaea, a genetically distinct group of microorganisms that provide insight into the early evolution of life on Earth. Doctor Grahame studies fundamental problems of how metals such as cobalt, iron and nickel function in several highly unusual enzyme systems. These processes are closely related to how cobalt acts in the anti-anemia vitamin B-12, and how iron functions in the body. These studies advance our understanding of metal-containing enzymes in metabolic, ecological, and environmental processes, and contribute to the use of microorganisms for bioremediation, agricultural, and biomedical applications. Doctor Grahame receives extramural research support from the Department of Energy and from the National Science Foundation. During the past year, Doctor Grahame received research support from the United States Army Soldier and Biological Chemical Command (SBCCOM) for a project on Biological Threat Agent Simulants.

Susan Haynes, Ph.D., Assistant Professor, USU SOM Department of Biochemistry and Molecular Biology, has identified proteins that regulate the production of gametes (eggs and sperm) in fruit flies. A major cause of human infertility is impaired sperm production. Because sperm develop similarly in flies and humans, these studies on fruit flies could lead to novel treatments to correct human male infertility and to the development of novel pharmacological agents for male contraception. Similarly, the protein that regulates egg production is conserved in humans, and understanding its role could have similar applications to human health. Doctor Haynes has served as the co-chair of two Washington area regional scientific groups: the RNA Club and the Drosophila Interest Group. She is a member of the Executive Committee of the Molecular and Cell Biology Graduate Program and has served on the thesis committees for students in the graduate program. Her research is funded by an extramural grant from the National Institutes of Health and an intramural grant from USU.

David S. Horowitz, Ph.D., Assistant Professor, USU SOM Department of Biochemistry and Molecular Biology, works on the molecular processes involved in the production of messenger RNA, which carries information from the cell's genes to form the blueprint for the synthesis of cellular proteins. When initially synthesized, the genetic information is encoded in a large linear polymer containing segments of information separated by non-information-bearing segments. Processing the RNA for the protein synthesis machinery of the cell requires the removal of the non-information segments and the

joining of the information-containing segments. How the many cellular macromolecules, that participate in this fundamental process, work together is necessary to understand protein production in cells. Doctor Horowitz receives extramural research support from the National Institutes of Health.

Daniel R. TerBush, Ph.D., Assistant Professor, USU SOM Department of Biochemistry and Molecular Biology, studies exocytosis in yeast. Exocytosis is the process whereby vesicles containing lipid and protein cargo bud off the trans Golgi and are targeted to, and fuse with, the plasma membrane. Exocytosis is highly regulated; and, exocytic vesicles only fuse at specific, localized domains on the plasma membrane. A multiprotein complex, termed the Exocyst, serves as a specific targeting patch for the exocytic vesicles and is required for their fusion at these specialized domains in yeast and in higher eukaryotes. The research has focused on understanding the role of a protein, Exo70p, in vesicular trafficking. Understanding the biochemical mechanism of how exocytic vesicles are specifically targeted to certain areas will help understand such basic processes as cellular differentiation, neurotransmission, and axon pathfinding. Doctor TerBush's research is funded by the National Science Foundation.

Xin Xiang, Ph.D., Assistant Professor, USU SOM Department of Biochemistry and Molecular Biology, studies how intracellular transport works. Cells move material from areas of assembly to areas of destination like a monorail on intracellular networks composed of protein tubules. A virus that infects a cell can use this pathway to transport its genes to the nucleus. Neuronal function requires movement of material produced in the nucleus to the nerve endings and back. A molecular motor, composed of several proteins, attaches to the transportable material and moves it to its destination. The understanding of which proteins are used to regulate the motor; attach cargo to it; and, transport and release the cargo area could lead to antiviral drugs or enhanced neuronal function. Doctor Xiang' extramural research is funded by the National Science Foundation.

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Dermatology - School of Medicine.

***Individual Contributions*.**

Leonard C. Sperling, M.D., COL, MC, USA, Professor and Chair, USU SOM Department of Dermatology, has authored a textbook entitled, Atlas of Hair Pathology with Clinical Correlations. This textbook was available for purchase in March of 2003 and was featured at the American Academy of Dermatology Meeting. The book contains 365 illustrations and is the first comprehensive review of the microscopic pathology of hair disease. It was published by Parthenon Publications.

Tom Darling, M.D., Ph.D., USU SOM Department of Dermatology, Director of the Sulzberger Laboratory for Dermatologic Research, co-authored the following book chapter in a new dermatology textbook, first presented at the American Academy of Dermatology Meeting in March of 2003: *Application of Molecular Biology to the Study of Skin*, Dermatology, 1st Edition, Harcourt Health Sciences, London, 2003.

Lieutenant Colonel (promotable) Scott A. Norton, Associate Professor, USU SOM Department of Dermatology, has been recognized as an authority on the use of smallpox vaccination. He is working closely with the Centers for Disease Control and the American Academy of Dermatology to develop guidelines for the administration of this vaccine.

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Family Medicine - School of Medicine.

Departmental Activities.

The USU SOM Departments of Family Medicine and Medical and Clinical Psychology Establish the USU Center for Health Disparities Research and Education - Project EXPORT. The Liaison Committee on Medical Education (LCME) has stated that medical faculty and students need to address gender and cultural biases in the delivery of health care; and, in general, prepare providers to care for diverse patient populations. Under the direction of **Evelyn L. Lewis, M.D., (CDR, MC, USN, Retired), SOM Department of Family Medicine,** and **Richard Tanenbaum, Ph.D., SOM Department of Medical and Clinical Psychology,** USU has developed a biopsychosocial training program for medical students and residents, nursing students, clinical/medical psychology graduate students and other prospective health care professionals, faculty, and staff. The USU SOM Center for the Enhancement of Healthcare Training and Outcomes (CEHTO) enables the University to comply with the LCME requirements and improves USU's curricula by providing training to optimize patient adherence and enhance health care outcomes. During 2003, USU and the Departments of Family Medicine and Medical and Clinical Psychology applied for, and successfully received, a substantial grant from the National Institutes of Health (NIH) to sponsor the USU Center for Health Disparities Research and Education, referred to as *Project EXPORT*. Doctor Evelyn L. Lewis is the Principal Investigator on the NIH grant; Doctor Richard Tanenbaum serves as the Co-Principal Investigator and Project Director. **David S. Krantz, Ph.D., Professor and Chair, USU SOM Department of Medical and Clinical Psychology,** is the Center Director. As part of *Project EXPORT*, CEHTO will assist in meeting the following objective: to develop workshops and other educational forums that focus on disseminating critical knowledge about health disparities and teaching practical skills in order to maximize culturally proficient health care service delivery. (*See Section II, RESEARCH CENTERS AND PROGRAMS, for further information on Project EXPORT.*)

Department Establishes First Endowment to Enhance Education in Military Family Medicine. During 2003, the Department of Family Medicine established its first endowment to enhance education in Military Family Medicine. At a ceremony held on September 5, 2003, Pfizer Pharmaceuticals presented the Henry M. Jackson Foundation with an unrestricted $20,000 grant to initiate an endowment on behalf of the Department of Family Medicine.

Department of Family Medicine Hosts Two Major Conferences. The Department of Family Medicine hosted two significant conferences, during 2003, which were attended by hundreds of physicians: *The 11th Annual Capitol Conference Board Review Course* and the *Fourth Annual American Society of Sports Medicine Marine Corps Marathon Conference*.

The Department of Family Medicine Sports Medicine Fellowship Program. The Department of Family Medicine Sports Medicine Fellowship Program is headed by **Colonel Francis G. O'Connor, MC, USA, Associate Professor, USU SOM Department of Family Medicine,** who serves as a Board

member for the American Medical Athletic Association. In addition, Doctor O'Connor, and the Sports Medicine Fellowship Training Program continued to provide voluntary health care for sports teams throughout the Washington, D.C. area, to include medical support for the Northern Virginia Special Olympics and teams from Universities and other organizations. During October of 2003, the Sports Medicine Fellowship Program, Colonel O'Connor, **Commander Scott Pyne, MC, USN, United States Naval Academy,** and **Commander Bruce Adams, MC, USN, Marine Corps Base, Quantico,** helped to organize the Annual Marine Corps Marathon held in Washington, D.C.; they ensured medical support for more than 20,000 participants.

Department Begins a Major Renovation of the University Health Center. The Department of Family Medicine initiated the complete renovation of the USU Health Center, which will bring the clinical facilities in line with appropriate accreditation standards, policies and regulations; the renovation project will also provide a first-class facility that showcases the best of Military Health Care for the uniformed students at USU who will become the future physicians, advanced practice nurses, and scientists for the Military Health System. Phase I, the major portion of the renovation project, will be completed during 2004; Phase II is expected to be completed, during 2005.

Smoking Prevention Programs Provided at Six Elementary Schools. The Department also sponsored ***Tar Wars Smoking Prevention Programs*** at six local elementary schools for hundreds of students. This program uses the skills of the Department Faculty and the enthusiasm of the USU SOM medical students to deliver this important program, throughout the local area.

Individual Contributions.

Colonel Brian V. Reamy, USAF, MC, Associate Professor and Chair, USU SOM Department of Family Medicine, was selected to present a plenary lecture on Hyperlipidemia to the 55th Annual American Academy of Family Physicians (AAFP) Scientific Assembly held in New Orleans, on October 2, 2003. **Colonel Francis G. O'Connor, MC, USA, Associate Professor, USU SOM Department of Family Medicine,** was selected to direct Workshops on Musculoskeletal Medicine at the same meeting. The AAFP Annual Assembly is the largest single physician continuing education meeting in the world.

Colonel William Sykora, USAF, MC, Assistant Professor, USU SOM Department of Family Medicine, finalized an agreement with the University of Arizona to provide training in complementary medicine to DoD providers. The funding for this initiative was given by TATRC, Department of Defense, to the University of Arizona. The Department of Family Medicine provides expertise in the potential military applications of several complementary medicine techniques as well as access to providers throughout the Department of Defense.

Cindy C. Wilson, Ph.D., C.H.E.S., Professor, USU SOM Department of Family Medicine, coordinated, on behalf of the Department of Family Medicine, with the SOM Offices of Faculty Affairs and Medical Education to sponsor numerous courses and seminars, which strongly supported faculty development throughout the University. During 2003, 232 USU faculty members earned over 359 hours of continuing education.

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Medical History - School of Medicine.

***Individual Contribution*.**

Dale C. Smith, Ph.D., Professor and Chair, USU SOM Department of Medical History, participated in numerous background discussions with the National News Media, during 2003. Doctor Smith continued to bring the public's attention to the unique and critically required practice of military medicine and the essential provision of continuity, leadership, and medical readiness by USU for the Military Health System. For example, *CBS Sunday Morning News* featured a piece on battlefield medicine, for release on Sunday, April 13, 2003. The CBS reporters and crew interviewed both the current (Doctor Smith) and past (Robert Joy, M.D.) Chairs of the Department of Medical History, covered a portion of a lecture, and filmed extensively in the USU Patient Simulation Laboratory (PSL). On October 13, 2003, an article, *America's Near-Invisible Wounded*, in the New Republic, featured Doctor Smith's expertise reference American casualties in Iraq. He explained how, since Desert Storm, the size of the battlefield and the forward movement of American forces has made the transfer of casualties to a hospital a much longer trip; this prompted the Army to rethink the medevac process and eventually yielded a system, on display in Iraq today, which brings surgeons to the wounded rather than vice-versa.

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Medical and Clinical Psychology - School of Medicine.

Departmental Activities.

The USU SOM Departments of Medical and Clinical Psychology and Family Medicine Establish the USU Center for Health Disparities Research and Education - Project EXPORT. The Liaison Committee on Medical Education (LCME) has stated that medical faculty and students need to address gender and cultural biases in the delivery of health care; and, in general, prepare providers to care for diverse patient populations. Under the direction of **Richard Tanenbaum, Ph.D., SOM Department of Medical and Clinical Psychology,** and **Evelyn L. Lewis, M.D., (CDR, MC, USN, Retired), SOM Department of Family Medicine,** USU has developed a biopsychosocial training program for medical students and residents, nursing students, clinical/medical psychology graduate students and other prospective health care professionals, faculty, and staff. The USU SOM Center for the Enhancement of Healthcare Training and Outcomes (CEHTO) enables the University to comply with the LCME requirements and improves USU's curricula by providing training to optimize patient adherence and enhance health care outcomes. During 2003, USU and the Departments of Family Medicine and Medical and Clinical Psychology applied for, and successfully received, a substantial (P20) grant from the National Institutes of Health (NIH) to sponsor the USU Center for Health Disparities Research and Education, referred to as *Project EXPORT*. Doctor Evelyn L. Lewis is the Principal Investigator on the NIH grant; Doctor Richard Tanenbaum serves as the Co-Principal Investigator and Project Director. **David S. Krantz, Ph.D., Professor and Chair, USU SOM Department of Medical and Clinical Psychology,** is the Center Director. As part of *Project EXPORT*, CEHTO, in partnership with the University of Maryland-Eastern Shore and other community-based organizations, will assist in meeting the following objective: to develop workshops and other educational forums that focus on disseminating critical knowledge about health disparities and teaching practical skills in order to maximize culturally proficient health care service delivery. (*See Section II, RESEARCH CENTERS AND PROGRAMS, for further information on Project EXPORT.*)

USU SOM Departments of Medical and Clinical Psychology, Medicine, Military and Emergency Medicine, and Preventive Medicine and Biometrics Receive NIH Funding for an Interdisciplinary Training Program. The National Heart Lung and Blood Institute (NHLBI) of the National Institutes of Health (NIH) awarded an Institutional Training Grant (T32) to **David S. Krantz, Ph.D., Professor and Chair, USU SOM Department of Medical and Clinical Psychology,** and **Tracy Sbrocco, Ph.D., Associate Professor, USU SOM Department of Medical and Clinical Psychology,** for an *Interdisciplinary Training Program in Behavioral Medicine and Cardiovascular Research*. The NIH grant provides stipends and expenses for a program to train predoctoral and postdoctoral students in areas of cardiovascular risk factors and prevention and cardiac pathophysiology. The program represents a collaboration of faculty from the USU SOM Departments of Medical and Clinical Psychology, Medicine, Military and Emergency Medicine, and Preventive Medicine and Biometrics.

Department Establishes a New Clinical Psychology Training Track. The Department of Medical and Clinical Psychology established a new clinical psychology training track with an emphasis

in medical psychology. The Department pursued accreditation for this track, during 2003, from the American Psychological Association.

(*See Section IV, Responsiveness to the Needs of the Services and ACADEMIC REQUIREMENTS AND ACCREDITATION, for further information on the Department's Graduate Education Programs.*)

Individual Contributions.

Michael Feuerstein, Ph.D., MPH, Professor, USU SOM Department of Medical and Clinical Psychology, was invited by the United States Department of Labor, Occupational Safety and Health Administration, National Advisory Committee on Ergonomics, to present the policy implications of his research. Doctor Feuerstein's presentation, given on January 27, 2004, was part of the Committee's effort, through a small group of invited researchers, to obtain advice and recommendations regarding new ergonomic guidelines, research and outreach. (*See Section II, RESEARCH CENTERS AND PROGRAMS, Center for Ergonomics and Workplace Health, for further information on Doctor Feuerstein's work.*)

Kelly Rohan, Ph.D., Assistant Professor, USU SOM Department of Medical and Clinical Psychology, received the *2003 J. Christian Gillin Young Investigator Research Award* from the Society for Light Treatment and Biological Rhythms (SLTBR). This award recognizes a "young investigator, who is actively conducting research on the clinical aspects of biological rhythms and light therapy, using an original approach that demonstrates independence of thought." Doctor Rohan's randomized clinical trail comparing light therapy, cognitive-behavioral therapy, and their combination for treating seasonal affective disorder (SAD) was also featured in a Washington Post article, *A SAD Solution*, on January 13, 2004 (Health Section, Page HE01).

Kathyryn Roecklein, Graduate Student, Medical and Clinical Psychology, in collaboration with **Doctor Kelly Rohan; Ignacio Provencio, Ph.D., Assistant Professor, USU SOM Department of Anatomy, Physiology and Genetics (APG);** and **Mark D. Rollag, Ph.D., Professor, USU SOM Department of APG,** has recently completed a study observing an independent frequency of a specific gene mutation for melanospin in patients with seasonal effective disorder (SAD). This work builds on Doctors Provencio and Rollag's recent discovery of melanospin, a retinal pigment. Their current work is pursuing additional research to assess whether melanopsin may be involved in the pathophysiology of SAD and other circadian rhythm disorders.

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Medicine - School of Medicine.

***Individual Contributions*.**

Colonel Henry Burch, MC, USA, Associate Professor of Medicine and Director, Division of Endocrinology, served as Editor for the summer volume of The Endocrinology and Metabolism Clinics of North America entitled, *Consultative Endocrinology*. He has current chapters in five endocrinology textbooks, including Becker's Principles and Practices in Endocrinology and Metabolism, DeGroot's Endocrinology, Werner and Ingbar's The Thyroid, Wartofsky's Thyroid Cancer, and, McDermott's Endocrine Secrets. Doctor Burch serves as Reviewer for the Journal of Clinical Endocrinology, Thyroid, Endocrine Practice and several other journals. He serves as the Chief of the Endocrinology, Diabetes, and Metabolism Service at the Walter Reed Army Medical Center and as Chair of the Endocrinology Division for the USU Department of Medicine.

Louis Cantilena, M.D., Ph.D., Professor of Medicine and Director, Division of Clinical Pharmacology, serves as the President of the Association of Clinical Pharmacology Units (ACPU), an international organization of clinical research professionals who primarily conduct early phase human drug studies. He also chairs the Non-Prescription Drug Advisory Committee for the Food and Drug Administration. Doctor Cantilena is a reviewer for the Internet Journal of Medical Toxicology; and, he is also a member of the Patient Safety Subcommittee of the American College of Medical Toxicology.

Captain Chad DeMott, USAF, MC, Assistant Professor of Medicine, was selected by the residents at the Wright-Patterson Air Force Base, Ohio, as Ward Attending for the year. He co-authored two chapters in Pocket ICU Management, co-presented at a workshop on student logbooks at the Clerkship Directors of Internal Medicine Annual Meeting.

Sonia Doi, M.D., Ph.D., Research Associate Professor of Medicine, was a Guest Lecturer at the University of Sao Paulo (Research Committee Seminars, School of Pharmaceutical Sciences and Department of Physiology and Biophysics, Institute of Biomedical Sciences), Brazil. Her lectures focused on *Molecular Mechanisms in the Development of Chronic Kidney Disease* and on *Glutamine and Glomerulosclerosis*. Additionally, Doctor Doi was a featured guest speaker in the International Forum of Motor Activity and Health, Methodist University of Piracicaba, Brazil, and lectured on *The Effect of Glutamine on Glomerulosclerosis*.

Andre Dubois, M.D., Ph.D., Research Professor of Medicine, was the senior author in the lead Major Article of the April 15, 2003 issue of the Journal of Infectious Diseases; one of the figures submitted with Doctor Dubois' article was selected to illustrate the cover of that particular issue of the Journal. He co-chaired a session entitled, *Evolving Perspectives on H. pylori Disease and Management*, during the 2003 Meeting of the American Gastroenterological Association. At the same meeting, he presented a lecture entitled, *Worldwide Persistence of Helicobacter pylori: Role of Intracellular and*

Tissue Invasion, as well as two posters. As the recipient of the 2002 USU James Leonard Award for Excellence in Clinical Science Research, Doctor Dubois presented a lecture entitled, *Colonization and Invasion of the Gastric Mucosa by Helicobacter pylori: the Rhesus Monkey Model*.

Major Steven Durning, USAF, MC, Assistant Professor of Medicine, has recently published several articles in Academic Medicine and Teaching and Learning in Medicine, as well as an article in the Research in Medical Education Academic Medicine Supplement. Additionally, Doctor Durning serves as a reviewer for these medical education journals. Major Durning was also a finalist for the New Investigator Award for Research in Medical Education Meeting, in 2003; and, he served as an invited speaker at several meetings, including the Association of Medical Educators in Europe (AMEE) Meeting.

Margaret MacKrell Gaglione, M.D., was promoted to the rank of **Associate Professor of Medicine,** during 2003. She is often named most influential teacher by the third-year USU SOM students on Internal Medicine Rotations at the Naval Hospital in Portsmouth, Virginia. She presented a workshop on *Diagnosing and Treating Your Learner's Clinical Reasoning Skills*, at the Clerkship Directors in Internal Medicine Annual Meeting, held in Savannah, Georgia. Doctor Gaglione also had two papers published in Academic Medicine, *Role Modeling* and *Inter-Site Consistency as a Measurement of Programmatic Evaluation in a Medicine Clerkship with Multiple, Geographically Separated Sites*. Accepted for publication in Medical Education is *Assessment of Patient Management Skills and Clinical Skills of Practicing Physicians Using Computer-Based Case Simulations and Standardized Patients*. Doctor Gaglione is active in community service and speaks on nutrition at local middle schools; she also serves as an on-site physician for the *American Diabetes Association 30/50/100 Mile Bike Tour: Tour de Cure* in Chesapeake, Virginia.

Robert E. Goldstein, M.D., Professor and Chair, Department of Medicine, received the prestigious John F. Maher Memorial Laureate Award, in November of 2003. The District of Columbia Chapter of the American College of Physicians (ACP) presents this award to those physicians who have shown by their lives and conduct an abiding commitment to excellence in medical care and service to the ACP. In presenting the award, Doctor Eugene Libre, Governor, ACP, DC Chapter, noted that Doctor Goldstein... ***"has set standards for professional skill and ethical conduct,*** (and) ***serves as a role model for other generations of physicians...*** (in) ***his many years of accomplishments, he serves as a beacon to guide our profession."*** Additionally, Doctor Goldstein was awarded the Department of Navy Meritorious Civilian Service Medal for his ***"effective leadership, unparalleled initiative and inspiring devotion to duty...*** (and) ***in recognition and appreciation of his Meritorious Service, which has been of high value and benefit to the Navy."***

Mark C. Haigney, M.D., Associate Professor of Medicine and Director, Division of Cardiology, published papers in Circulation Research and the Journal of the American College of Cardiology; his papers were based on both basic and clinical research regarding the pathophysiology of progressive heart failure. Doctor Haigney presented data at the North American Society for Pacing and Electrophysiology, demonstrating a new method for predicting lethal arrhythmias in subjects with

heart disease. Additionally, he was invited to give the core curriculum lecture on vasovagal syncope, the most common cause of loss of consciousness. Doctor Haigney serves on the Cellular and Molecular Transport Study Section of the National American Heart Association; and, he is a member of the Executive Committee for the AVID-2 Trail, an international study of defibrillators for the prevention of recurrent sudden cardiac death.

Lieutenant Colonel Paul Hemmer, USAF, MC, Associate Professor of Medicine, and Director, Third-Year Clerkships, was elected as the President-elect, USU Faculty Senate. Doctor Hemmer continues to serve as the Treasurer for the Clerkship Directors in Internal Medicine, the national organization for leaders in medical education. LtCol Hemmer is a reviewer for premier medial education journals, to include the: Journal of Academic Medicine, Journal of General Internal Medicine, Teaching and Learning in Medicine, and Medical Teacher. Because of his expertise and reputation in this field, LtCol Hemmer was honored as a Visiting Professor to the Emory University School of Medicine to discuss the evaluation of students and clerkships. Additionally, LtCol Hemmer was an Outstanding Graduate of the Air War College, in 2003.

Przemyslaw Hirszel, M.D., Professor of Medicine, Director, Division of Nephrology, continues to serve as a valued member of the Department of Medicine's Executive Committee and as a mentor to junior faculty members, whom he guides in their research endeavors. He also serves on several University and School of Medicine committees.

Lieutenant Colonel Jeffrey Jackson, MC, USA, Associate Professor of Medicine and Director, Division of General Internal Medicine, served as Chair of the Communications Committee and Chair of the Web Site Re-Design Committee for the Society of General Internal Medicine (SGIM), as well as a member of the Editor Selection Committee for the Journal of General Internal Medicine. He also served as the Chair for Workshops for the 2003 SGIM Regional Meeting held in Baltimore, Maryland. LTC Jackson conducted an 8-hour *Workshop on Meta-Analysis* and a 1.5-hour *Workshop on Structural Equation Modeling* for the Society of General Internal Medicine's 2003 Meeting, in Vancouver, Canada. His *Workshops on Providing Effective Feedback* and *Meta-Analysis* were selected, by peer-review, for presentation at the 2004 SGIM Meeting, in Chicago, Illinois. In recognition of his growing national and international reputation, Doctor Jackson was asked to conduct a meta-analysis of the effect of tricyclic anti-depressants on headaches for the International Cochrane Collaboration, based in the United Kingdom, and to write a chapter on total body imaging for Up-To-Date, the premier educational resource for staff, residents, and medical students in the United States. Led by Doctor Fletcher at Harvard University, Up-To-Date is an attempt to provide evidence-based answers to clinical questions in real time. Doctor Jackson has successfully mentored several Fellows in the General Internal Medicine Fellowship Program; and, he has presented papers and posters at several scientific programs. He is a prolific writer with seven publications in 2003, five papers in press, and another five papers currently in review, in the fields of medical outcomes, patient satisfaction, faculty development, and alternative health practices. His papers have appeared in Academic Medicine, Annals of Internal Medicine, Archives of Internal Medicine, and JAMWA.

Captain Gregory Martin, MC, USN, was promoted to **Associate Professor of Medicine,** and is the Course Director for three new graduate courses in ***Weapons of Mass Destruction: Nuclear, Radiation and High Yield Explosives***. He led the evaluation and treatment of 43 Marines with falciparum malaria, contacted in Liberia; findings were presented to Subcommittees of the United States Senate and House of Representatives. He also completed book chapters on *Envenomations* and another on *Pulmonary Infections in the Tropics*. Doctor Martin has given several invited lectures on relevant, *hot-button* topics: at ***the National Institutes of Health***, he presented *Malaria in Marines Deployed to Liberia: Lessons Learned in Preparing for Biowarfare*; at ***the Johns Hopkins University Bloomberg School of Public Health***, he lectured on *The Changing Role of the Department of Defense in Emergency Preparedness in the Wake of 9/11 and the 2001 Anthrax Events*; at ***The American College of Chest Physicians Annual Meeting*** held in Orlando, Florida, he presented a *Bioterrorism Workshop: The Bacterial Agents of Biowarfare-Anthrax, Plague and Tularemia*; and, at the 8th Annual Infectious Diseases Board Review Course held in McLean, Virginia, he presented *Bioterrorism: Clinical Issues the ID Practitioner Should Know*.

Colonel Deborah Omori, MC, USA, Associate Professor of Medicine, is a Fellow in the American College of Physicians. She presented a workshop on *Bioterrorism for Internists* at the Army American College of Physicians Meeting and at the 25th Annual Society of General Internal Medicine Meeting. Doctor Omori also presented a workshop on *Objective Structured Clinical Examinations and Standardized Patients in Medical Education: Getting Started and Expanding Roles* at the 2003 Clerkship Directors in Internal Medicine National Meeting, held in Savannah, Georgia. Colonel Omari is a member of the Precourse Selection Committee for the 27th Annual Society of General Internal Medicine. She also developed a workshop on *Improving the Early Identification and Intervention of Professional Issues* for the 27th Annual Society of General Internal Medicine Meeting, held in Chicago, Illinois. She is Chairman of the Army's National Capital Area First-Year Graduate Medical Education (GME) Board (FYGME); and, she is Coordinator of the annual OSCE for second-year USU medical students. In addition, Doctor Omori presents an annual workshop for the USU General Internal Medicine Fellows on *Bedside Teaching* and *Clinical Teaching Through Role Play*.

Louis N. Pangaro, M.D., Professor of Medicine, Vice Chair, Educational Programs, serves on the Research Advisory Committee of Academic Medicine and on the Internal Research Review Committee, National Board of Medical Examiners. He also serves as the Co-Director, Course for Residency and Fellowships Program Directors, for the National Capital Consortium; and, he is a member of the Research in Education Committee of the GEA/AAMC. He is highly sought after on the evaluation of students, having presented at various medical schools in North America and the National Board of Medical Examiners. In addition, he has lectured to clerkship directors at the annual CDIM meeting as well as to staff at USU's affiliated hospitals. Doctor Pangaro has presented at several workshops, including the Association for Medical Education in Europe. He has written numerous publications for peer-reviewed publications such as Academic Medicine, CDIM News, and Teach and Learn Medicine.

Matthew Pollack, M.D., Professor of Medicine, uses various animal models to study pathogenic mechanisms of bacterial diseases and host responses to a common grouping of opportunistic bacteria known as gram-negative bacteria. He has published extensively in the fields of bacterial diseases,

Pseudomonas infections, endotoxin, sepsis, and septic and hemorrhagic shock. His research on cytokines and hemorrhagic shock has serious implications for military medicine since shock continues to be one of the most common and serious consequences of battlefield injury and one of the most frequent causes of death.

Lieutenant Colonel John Poremba, USAF, MC, Assistant Professor of Medicine, published an article on improving diabetic foot care in the Journal of General Internal Medicine; and, he co-authored three poster presentations for the Endocrine Society. He directed the 2003 ***Clerkship Directors of Internal Medicine (CDIM) Post-Course on Standardized Patients*** and co-authored a CDIM workshop. He was named Course Director for ***ICM-III*** and has implemented a course website and an on-line testing program for ***ICM-III***.

Lieutenant Colonel Michael Roy, MC, USA, Associate Professor of Medicine and Director, Division of Military Internal Medicine, published extensively, during 2003. He served as Editor for the Physicians's Guide to Terrorist Attack, a 420-page clinically-oriented book published by Humana Press; the book is intended to prepare health care providers for responding to conventional, biological, chemical, and radiological terrorism. Also, he was Editor of a 72-page supplement to Military Medicine, which was focused on the future of military medical education. Colonel Roy authored a chapter entitled, *Bioterrorism*, in the book, Combat Medicine, published by Humana Press; he authored another chapter on *Depression* in a book entitled, Psychiatry for Primary Physicians, published by the American Medical Association; and, he authored six articles in peer-reviewed medical journals. Doctor Roy provided a 10-lecture series on military medicine for students at the National Defense Medical College in Tokyo, Japan; he provided approximately one dozen lectures to military and civilian audiences on improving the diagnosis and treatment of depression and anxiety in primary care, at locations around the Nation, to include Philadelphia, Baltimore, Washington, D.C., and San Francisco. ***His editorial skills are in great demand, as he provides peer reviews for nine medical journals; and, the quality of his reviews has been recognized for being in the top 10 percent of all reviews by Annals of Internal Medicine.*** Doctor Roy serves as Editorial Consultant for the *American College of Physicians' Information and Education Resource*, an on-line evidence-based guide for clinicians, providing modules on both posttraumatic stress disorder and complementary and alternative medicine in the treatment of depression. In the research arena, he is the Primary Investigator for a $1.25 million grant from the United States Army Medical Research and Materiel Command to study the health effects of DEET, permethrin, and pyridostigmine under stress conditions; he has completed subject enrollment and has presented results at national meetings. Doctor Roy also serves as Co-Investigator in a study on the safety of lasers as non-lethal weapons, under a grant from the Non-Lethal Weapons Directorate. Significantly, Doctor Roy was recognized as a leader in military medicine upon his selection as one of only 21 Army physicians to receive the ***A Proficiency Designator***, in 2003.

Terez Shea-Donohue, Ph.D., Research Professor of Medicine, is a Co-Investigator on a National Institutes of Health (NIH) grant, RO1HL-62282, *Substance P Mediated Cardiovascular Inflammation*, with William Weglicki, M.D., George Washington University School of Medicine. This research will identify the impact of mild to severe magnesium deficiency cardiac and gastrointestinal function. ***Doctor Minela Fernandez, a third-year Pediatric Gastroenterology Fellow working in Doctor Shea-Donohue's***

laboratory, was selected as a finalist for the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition Fellow Award. Doctor Shea-Donohue was invited to join the Working Team on Gastrointestinal Motility and its Control in Health and Disease; a collaborative effort between the World Congress of Gastroenterology (Montreal 2005) and AstraZeneca (through an educational grant) to create a new set of teaching/research material in this field, which will be made available to the public. Doctor Shea-Donohue was also the recipient of an Invitational Travel Award, from the International Motility Society in Barcelona, Spain.

Lieutenant Colonel Jose A. Stoute, MC, USA, recently returned from a six-year assignment in Kenya, Africa, where he conducted malaria vaccine trials and developed a severe malaria research and training program that is funded by the National Institutes of Health and the Fogarty International Center. In addition to his continued involvement in malaria research, in Kenya, he is also developing intramural research programs to study malaria pathogenesis focusing on both animal and *in vitro* models.

Colonel George Tsokos, MC, USA, Professor of Medicine, Vice Chair for Research Programs, and Director, Division of Immunology and Rheumatology, is well known in his field of expertise. He continues to serve as a member of the NIH Immunological Sciences Study Section; and, he was elected Councilor/President for 2001-2006 of the Clinical Immunology Society. Doctor Tsokos is also a member of: the Board of Directors of the Lupus Foundation of America; the Arthritis Foundation Immunology Study Section; and, the Abstract Selection Committee, National American College of Rheumatology. Colonel Tsokos serves as editor, or guest editor, of numerous publications such as International Reviews in Immunology, Trends in Molecular Medicine, Journal of Immunology, Clinical and Diagnostic Laboratory Immunology, Lupus, Journal of Investigative Medicine,and Clinical Immunology. He is the Chair of the Editorial Board of Lupus News; and, he is the Editor-in-Chief of Modern Therapeutics in Rheumatic Diseases. Doctor Tsokos has contributed chapters in several books. He is a much sought after speaker on the topic of Lupus and other immunological diseases and currently holds three NIH RO1 grants and one grant from the Medical Research Materiel Command.

Colonel Robert Vigersky, MC, USA, Associate Professor of Medicine, has become a member of the American Board of Internal Medicine's Question Writing Committee. He has continued to represent the Endocrine Society as its American Medical Association (AMA) Delegate; he completed a three-year term as the Chair of the Clinical Affairs Committee and has been appointed as the Chair of the Clinical Guideline Committee. He serves as a member of the National Diabetes Education Program and is a Section Editor for the Journal, The Endocrinologist. His research has focused on the use of technology to assist in the diagnosis management of diabetes mellitus and its complications; he has received several competitive awards in support of those efforts. He was awarded the ***Department of the Army's A Proficiency Designator*** and also received the *James Leonard Award for Excellence in Teaching*.

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Microbiology and Immunology - School of Medicine.

***Individual Contributions*.**

Alison D. O'Brien, Ph.D., Professor and Chair, USU SOM Department of Microbiology and Immunology. In teaching the ***Medical Microbiology and Infectious Diseases (MMID) Course***, Doctor O'Brien gave 12 hours of lectures with approximately 35 hours of lecture preparation, 16 hours of laboratory exercises, three hours of review conferences, 20 hours of examination question preparation, and four hours of review of MMID examinations. Doctor O'Brien is the on-site Course Coordinator and one of three Course Planners for the four-quarter ***Models of Emerging Infectious Diseases (EID) Course***. In ***EID 501***, she gave two hours of lectures (plus two hours of lecture preparation) and served as Group Discussion Leader for a two-hour tutorial session. She also graded mid-term examinations (two hours), participated in the oral final examination (total for two quarters was 13 hours), and attended most lecturers and tutorial sessions (30 hours). She gave a one-hour lecture to graduate and undergraduate students at Miami University, a one-hour lecture on toxins at the University of South Dakota, and a two-hour lecture to graduate students, with a separate one-hour lecture on toxins, at the University of Alabama. Doctor O'Brien's laboratory has continued with superior funding through the support of a recently funded portion of one of the six program grants that were a part of the Middle Atlantic Regional Center for Excellence (MARCE) application; she is a Project Leader for two cores. Her Regional Center for Excellence projects include the investigation of *B. anthracis* spore antigens as well as EHEC and *Shigella dysenteriae* type 1. Doctor O'Brien also was recently awarded a seven-year subcontract with ATCC funded by the National Institutes of Health (NIH/NIAID). This subcontract involves the creation of a facility for the acquisition, authentication and production of select agent toxins. During the past year, Doctor O'Brien published in five peer-reviewed journals and completed two chapters for premier publishers in her area of study.

Christopher C. Broder, Ph.D., Associate Professor, USU SOM Department of Microbiology and Immunology, had a most productive year, during 2003. In the area of ***teaching***, he presented nine one-hour lectures in the ***Medical Microbiology and Infectious Diseases (MMID) Course*** and participated in 17 hours of laboratories and small group sessions. He also served as the Coordinator for the ***Virology Laboratory Cases Exercise*** and the ***Rabies POPs***. In addition, he gave two hours of lectures in the ***Molecular and Cell Biology (MCB) Techniques Course***; one hour of lecture in the ***Emerging Infectious Diseases (EID) 501 Models Course***; and, four hours of lecture in the Department's ***Graduate Virology Course***; Doctor Broder was Co-Coordinator of that course. In the ***research*** arena, Doctor Broder continued to demonstrate his prowess. He submitted two R01s and 1 U01 applications, during 2003, and wrote a part of, and served as a project leader for one of the six program grants that comprised the Middle Atlantic Regional Center for Excellence (MARCE) application; he also serves on the MARCE Management and Oversight Committee. In addition, he filed two patent applications. Doctor Broder also co-published 7 peer-reviewed manuscripts, in premier journals. His contributions to USU are as a member of: the Merit Review Committee; the Research Policy Committee; the Comparability and Faculty Welfare Committee; and, the Equipment and Unfunded Requirements Review Committee. Finally, Doctor Broder serves the extramural scientific community as: a member of University of California's Grant Review Panel on the Molecular Biology and Pathogenesis of HIV; and, he serves as

an *ad hoc* member for Experimental Virology (EVR) and AIDS Molecular and Cellular Biology Study Sections at the National Institutes of Health (NIH). Doctor Broder has presented four invited lectures at: the Biodefense Vaccines Conference, held in Washington, D.C.; the NIH Research Festival Mini-Symposia, held in Bethesda, Maryland; the Norman P. Salzman Fourth Annual Symposium in Virology, held at the NIH; and, at the 6th Asia Pacific Congress of Medical Virology Meeting, held in Kuala Lumpur, Malaysia.

William C. Gause, Ph.D., Professor and Vice Chair, USU SOM Department of Microbiology and Immunology, participated as a lecturer (nine hours), laboratory instructor, and small group session leader in the ***Medical Microbiology and Infectious Diseases (MMID) Course***. Doctor Gause also served as a lecturer in the ***Molecular and Cell Biology Techniques Course*** (two hours), the ***Genetics Course*** (three hours), and as the Director of the ***Microbiology and Immunology Graduate Course on Cellular and Molecular Immunology*** (two hours). Doctor Gause's laboratory is extraordinarily well funded through the support of three R01s, two of which are his; indeed, one of his R01 awards was submitted for a competitive renewal and received a priority score of 141. Doctor Gause also has two NIH subcontract awards; and, he submitted a NCRR Shared Instrumentation application. During this past year, Doctor Gause lists five peer-reviewed papers in premier journals and an invited chapter. Doctor Gause's service to the University community, in addition to serving as Vice Chair of the Department, includes the following: Chair of the Departmental Search Committee for a new immunologist; and, Chair of the Biomedical Instrumentation Center Committee. Finally, Doctor Gause served the extramural scientific community in numerous ways, to include serving as a member of an NIH study section and as chair of a major symposium at the American Association of Immunologists (AAI) meeting. He was also an invited seminar speaker at three universities and an NIH symposium, where he presented: *Cytokines in the Pathogenesis of Asthma and Th2-mediated Diseases*. The research conducted in his laboratory is of considerable significance to the Military Health System and the USU mission as it examines the regulation of protective immune responses to helminthic parasites and certain pathogenic bacteria.

Chou-Zen Giam, Ph.D., Professor, USU SOM Department of Microbiology and Immunology, had a productive year. In the category of ***teaching***, Doctor Giam participated in the ***Medical Microbiology and Infectious Diseases (MMID) Course*** as a lecturer (eight hours), as a small group and laboratory session leader, and as the editor of the ***Virology*** block notes and examination. He was also the organizer of the Virology Journal Club and the Course Coordinator for the ***Advanced Molecular Virology Course***. Doctor Giam is the mentor of two Molecular and Cell Biology (MCB) graduate students; and, he is on the thesis committees of three other Ph.D. students. Doctor Giam also served the Department as the Chair of the Virologist Search Committee, during 2003. He is a member of the Oversight Committee for the USU Genomic and Proteomic Facility. Presently, Doctor Giam is the Principal Investigator for two R01 grants on HTLV-1 replication and pathogenesis, in their 16th and 7th year of funding, respectively. One of these two grants is being competitively renewed. Doctor Giam has been recently funded with a DoD grant on HCV replication and persistence; this grant has provided support for departmental laboratory renovation and equipment acquisition. He is a member of the Editorial Board of the Journal of Virology (2004-2006); he has served as an *ad hoc* reviewer for premier publications such as Blood, Cancer Research, the Journal of Virology, Oncogene, etc.; and, Doctor Giam was an invited speaker at the Laboratory of Metabolism, the National Cancer Institute, the National Institutes of Health, and the International HTLV-1 Meeting in San Francisco, California.

Ann E. Jerse, Ph.D., Associate Professor, USU SOM Department of Microbiology and Immunology. In the area of ***teaching***, Doctor Jerse made a substantive contribution to the ***Medical Microbiology and Infectious Diseases (MMID) Course*** as a lecturer (seven hours), laboratory instructor, and small group session leader. Doctor Jerse was the Course Director for the departmental ***Advanced Graduate Course on Pathogenic Mechanisms*** (56 hours); and, she participated in the ***Models of Pathogenesis Emerging Infectious Diseases (EID) Course 502*** (five hours). Doctor Jerse also supervised the research projects of two graduate students, an Infectious Disease Fellow, and a rotating graduate student. Furthermore, she serves on nine graduate students' committees, which include those of two of her own students. Doctor Jerse's ***research program*** is centered on defining the mechanisms by which *Neisseria gonorrhoeae* adapts to innate defenses of the female genital tract. This work is supported by an R01 grant and an intramural grant from USU. She also has two subcontracts with outside universities to develop gonorrhea vaccines and vaginal microbicides; and, she has a subcontract with a pharmaceutical company to test new antibiotics against *N. gonorrhoeae* using the female mouse model of gonococcal genital tract infection developed in her laboratory. Doctor Jerse submitted a competitive renewal application for her R01 grant, this year. She also submitted a proposal as part of the competitive renewal of a Clinical Research Center grant held by the University of North Carolina (P.I., P.F. Sparling) and set up a subcontract with Doctor William Shafer at Emory University for a grant he submitted, in January of 2004, for developing synthetic and natural peptides as vaginal microbicides against sexually transmitted infections. She is currently working with the Henry M. Jackson Foundation to set up an agreement with the Chiron Corporation to test vaccine candidates in her mouse model. Doctor Jerse was a guest seminar speaker at NMRC and an invited speaker at the NIAID Vaginal Microbicides Workshop, in the Spring of 2003, and at the Cold Spring Harbor Bacterial Pathogenesis Meeting, held in September of 2003. She had two peer-reviewed publications accepted, in 2003, by two premier journals. Finally, in the area of ***service to the University***, Doctor Jerse is on the USU IACUC and the Graduate Student Recruitment Committee for the MCB Program. She also serves the extramural community as an *ad hoc* reviewer and is a member of the *Infection and Immunity* Editorial Board.

Guangyong Ji, Ph.D., Assistant Professor, USU SOM Department of Microbiology and Immunology, served as a lecturer (six hours) and the Laboratory Director for the ***Medical Microbiology and Infectious Diseases (MMID) Course***, during 2003. He participated in the ***Procaryotic and Eukaryotic Genetics Course*** (7.5 hours), and served as a member on two graduate student committees. Doctor Ji also supervised the research project of a graduate student. Doctor Ji's research is focused on the mechanism of the processing and secretion of the *Staphylococcus aureus* signal molecule that is utilized by bacteria to regulate virulence gene expression and the molecular characterization of a staphylococcal membrane protein that is involved in these processes; this work is supported by a National Institutes of Health R01 grant.

Susan G. Langreth, Ph.D., Associate Professor, USU SOM Department of Microbiology and Immunology, made a significant contribution to the ***teaching programs*** of the Department. Her principal contribution was serving as the ***Course Director of Medical Microbiology and Infectious Diseases (MMID)***, a major second-year SOM course. Doctor Langreth is also the ***Course Director for the four related courses for graduate students (Immunology, Basic Bacteriology, Pathogenic Bacteriology, and Virology)***. Doctor Langreth also published a peer-reviewed article, during 2003.

Anthony T. Maurelli, Ph.D., Professor, USU SOM Department of Microbiology and Immunology. In the area of ***teaching***, Doctor Maurelli presented lectures in the ***Medical Microbiology and Infectious Diseases (MMID) Course*** (seven hours); and, he participated as a laboratory and small group session leader for the course. Doctor Maurelli also presented four hours of lectures in the ***Molecular and Cell Biology (MCB) Genetics Course***, for which he serves as the Course Director, and the ***Microbiology and Immunology Graduate Course on Pathogenic Mechanisms*** (1 lecture blocks). This year, Doctor Maurelli was awarded a competitive renewal of a National Institutes of Health (NIH) Shigella grant. He also submitted late for a competitive renewal of an NIH Chlamydia grant, receiving bridge funding, in the interim. Doctor Maurelli's ***service to the Department and to the USU community*** includes his membership on the CAPT Committee, the University Safety Committee, and the Graduate Education Committee. Additionally, he is an active participant on three graduate student committees, including one of his own students. He is also ***Director of the Microbiology and Immunology Graduate Program*** (i.e., academic director of the remaining students who entered the program before it merged with the Emerging Infectious Diseases (EID) Program), the immediate supervisor of the Department's washroom personnel, and, as noted above, ***Course Director for the Molecular and Cell Biology Genetics Course***. Lastly, Doctor Maurelli gives freely of his time to elementary schools as a volunteer scientist. He was also an *ad hoc* member of one NIH Study Section, as well as a reviewer for several journals. Doctor Maurelli published two articles in peer-reviewed journals, during the past year.

Eleanor S. Metcalf, Ph.D., Professor, USU SOM Department of Microbiology and Immunology. In the area of ***teaching***, Doctor Metcalf is a dedicated, organized, and well-liked lecturer and laboratory/small group instructor for the ***Medical Microbiology and Infectious Diseases (MMID) Course***. She is also teaching in the ***Advanced Immunology Course: Cellular and Molecular Immunology***, the core course in the Emerging Infectious Diseases (EID) curriculum. Moreover, she provided four hours of lectures in the ***Molecular and Cell Biology (MCB) Techniques Course***. Doctor Metcalf is a member of several graduate students' Dissertation Committees; and, she chairs one of those committees. ***Again this year, she has spent many hours on organizing and directing the new Emerging Infectious Diseases (EID) Interdisciplinary Graduate Program.*** Additionally, in her role as Chair of the Graduate Education Committee (GEC), she orchestrated the fourth gathering of prospective graduate students at USU. Doctor Metcalf's ***research endeavors*** have included the submission of an NIH competitive renewal, on which she serves as a subcontractor; an NIH R21 application; and, a labor-intensive NIH training grant proposal for the EID Graduate Program. Doctor Metcalf's ***service to the University***, in addition to serving as the Director of the EID Program and the Chair of the GEC, includes memberships on the Advisory/Oversight Committee for the Master Degree in Comparative Medicine Program; the M.D./Ph.D. Advisory Committee for the Physician Scientist Training Program; the University Space Committee; the USU SOM Research and Education Endowment Fund Oversight Committee; the Search Committee for the Chair of Pathology; and, the Chair of the Organizing Committee for the 2004 GEC Graduate Student Open House. Her ***contributions to the extramural scientific community*** include membership on a Dissertation Committee at the University of Pennsylvania and as an *ad hoc* reviewer for several journals. Basic science advances in the area of emerging infectious diseases can affect the current and future health of individuals throughout the Military Health System. ***Through the Emerging Infectious Diseases Graduate Program, the USU SOM has increased its capacity and commitment to training students and fellows in areas of vital interest and importance to military medicine, such as biothreat and bioterrorism agents.*** Doctor Metcalf published two peer-reviewed articles, during 2003.

Brian C. Schaefer, Ph.D., Assistant Professor, USU SOM Department of Microbiology and Immunology, participated as a lecturer (one hour), laboratory instructor, and small group session leader in the ***Medical Microbiology and Infectious Diseases (MMID) Course***. Doctor Schaefer also lectured in the ***Microbiology and Immunology Graduate Course on Cellular and Molecular Immunology*** (two hours), and he recruited two guest lecturers for the course (Doctor David Schatz and Doctor Brad Swanson). Doctor Schaefer has been extremely aggressive in seeking extramural funding: he submitted an R01 application, which received favorable reviews; but, it was not funded. This grant was re-submitted for possible funding, in 2004. He was also nominated by USU to submit an application to the Dana Foundation Program in Brain and Immuno-Imaging. Although this grant was not funded, the Dana Foundation requested that Doctor Schaefer resubmit his proposal with minor modifications in the next review cycle, suggesting that it had an excellent chance for eventual funding. Finally, Doctor Schaefer applied for the Kimmel Scholar Award from the Sidney Kimmel Foundation for Cancer Research, which will be reviewed in 2004. Over the past year, he was recruiting personnel for his laboratory. Currently, he has one post-doctoral fellow, one permanent graduate student from the Molecular and Cell Biology (MCB) Program, and two rotating graduate students from the Emerging Infectious Diseases (EID) Graduate Program; both students are likely to join his laboratory. Doctor Schaefer also had two additional rotating MCB graduate students over the past year. He has provided service to the University Community as a member of the Biomedical Instrumentation Center (BIC) Subcommittee on Imaging, and as an interviewer for prospective EID graduate students. Doctor Schaefer has also served as an *ad hoc* reviewer for the journal, *Proceedings of the National Academy of Science,* which also published one of his articles, during the past year.

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Military and Emergency Medicine - School of Medicine.

Departmental Activities.

Graduate Programs in Undersea Medicine and Aviation Physiology. In August of 2001, the USU Board of Regents gave its final approval for a new graduate program within the Department of Military and Emergency Medicine (MEM). This new graduate program, with its two specialties, emphasizes multidisciplinary education and research, and represents both a philosophy and mechanism for facilitating scientific investigations that bridge and integrate basic and medical sciences with applied environmental physiology. Such approaches are required for the foundations of operational medicine and applied physiology. The overall objective of the new graduate program is to serve the operational requirements of the Uniformed Services. The program's two specialties were developed in response to needs expressed particularly in the areas of Undersea Medicine and Aviation Physiology. These areas of study are unique from other medical fields of inquiry and demand specialized training. As such, the program's specialties unify a diversity of disciplines requisite for exploring questions relevant to operational activities and applied situational outcomes. The military student obtains a foundation in the basic sciences with research experience in experimental and applied physiology. The Undersea Medicine Specialty offers a Master of Science Degree (with thesis) and a Ph.D. Degree: and, the Aviation Physiology Specialty offers a Master Degree (with thesis). The graduate program accepted its first students, in August of 2002; and, there are currently two students enrolled in the program. Faculty for the program come from the Department of Military and Emergency Medicine as well as other SOM Departments; collaborative faculty include both active duty officers, some from military laboratories, and civilians who are experts in their fields. The Program Director can be contacted by e-mail at <*vcassano@usuhs.mil*>.

Applied Human Biology Division/Human Performance Laboratory - Establishment and Mission. The Human Performance Laboratory (HPL) was established, in 1984, as part of the Department of Military and Emergency Medicine, at USU, to provide a research base within the Department for conducting clinical and basic research projects relevant to military training and operations that would add to the understanding of factors that enhance/sustain human performance under operational conditions. In concert with the mission of USU, the mission of the HPL is to: 1) provide graduate, medical and other students and personnel at USU opportunities to participate in operationally relevant education and research experiences with a focus on maintenance and enhancement of human performance; 2) serve as a resource to USU and other DoD and government facilities for information relating to health, physical fitness, nutrition, and physical training programs; and, 3) maintain a strong research program for all aspects of human performance and military operational applications. Faculty and staff, within the HPL, participate in the education of medical and graduate students, in ongoing research efforts funded by the National Institutes of Health and the DoD, and in the provision of consultative support for the DoD. Activities of note occurring over the past year include the following: ***Educational Materials for the Uniformed Services.*** In September of 1999, two manuals relating to Force Health Protection were prepared and published for the Navy by the faculty and staff in the HPL. These manuals, entitled *Force Health Protection: Nutrition and Exercise Resource Manual* and *Peak Performance Through Nutrition and Exercise*, were widely disseminated for use; many requests for additional printings continue to be received. In the Spring of 2001, both the Coast Guard Health Promotion Directorate and the Marine

Corps requested permission to obtain and modify the manual, *Peak Performance through Nutrition and Exercise*, to be specific for their unique Services. Pictures relevant to their particular mission and selected words were changed so that the manual could be made available for all active duty Coast Guard personnel and Marines. Thus, these manuals are now being used by all Services in some capacity. In the Fall of 2002, the PHL produced an education tool, *A Compendium of Nutritional Products*, for divers in the United States Navy. Since the DoD is developing policies relating to the use of nutritional supplements, this new document will be of great use to the Navy divers. In sum, educational products prepared by the HPL have been, and are currently being used on a worldwide basis; and, they continue to benefit those who serve in the Uniformed Services. ***HPL Research Publications.*** Each year, a number of peer-reviewed articles, written by faculty and staff in the HPL, are published. During the past year, two papers were published in Military Medicine and in three other journals. The paper entitled, *Attitudes and Knowledge about Continuous Oral Contraceptive Pill Use in Military Women*, won an award and is very timely due to current deployment issues. Another paper, *Health Assessment of United States Army Rangers*, describes health attitudes, physical activity patterns, and supplement use among Army Rangers. This has also proven to be timely in that DoD has reconvened a committee to examine dietary supplement use among active duty personnel and to make recommendations regarding their use. Other articles have appeared in the Journal of Orthopedic Trauma, the Journal of Clinical Endocrinology and Metabolism, and Neurochemical Research. All of these publications have proven to be quite relevant to the Department of Defense. ***Consultative Support.*** Faculty within the HPL have been active throughout the DoD and civilian communities. **Patricia A. Deuster, Ph.D., Professor, USU SOM Department of Military and Emergency Medicine,** served as a grant reviewer for two National Institutes of Health (NIH) Review Panels: *Chronic Fatigue Syndrome/Fibromyalgia Syndrome Special Emphasis Panel* and the *National Center for Complementary and Alternative Medicine Special Emphasis Panel*. In addition, she served as an Invited Speaker for an NIH course on physical fitness, on a Navy committee on dietary supplements, and on two DoD-related committees: the *DoD/FDA Dietary Supplement Committee* and the *Veterans Affairs (VA) National Executive Committee for the MOVE (Movement for Obese Veterans Everywhere) Program*, a national health promotion program initiated by the VA to combat obesity. **Lieutenant Commander David O. Keyser, MSC, USA, Assistant Professor, USU SOM Department of Military and Emergency Medicine,** served as a principal investigator and consultant for ongoing international research efforts sponsored by the United States Department of Defense, as part of an antiterrorism focus, since 9/11; he was part of a review team that was tasked with evaluating the research potentials of private industry in support of these research efforts. Additionally, LCDR Keyser was an invited participant at an international information exchange meeting sponsored jointly by the United States Navy and the United Kingdom. This meeting has led to the development of a multi-year international research effort directed at understanding and protecting against novel weapons of mass destruction. LCDR Keyser has also represented USU as a scientific review panel member for the Office of Naval Research and the Naval Medical Research Command to help establish priority and direction of research funds for the Undersea Biomedical Research and Development community. He has also been an active member of the Walter Reed Army Medical Center Human Use Committee.

Individual Contributions.

Jeffery E. Drifmeyer, Ph.D., Assistant Professor, USU SOM Department of Military and Emergency Medicine, and **Craig H. Llewellyn, M.D., Professor and Past Chair, USU SOM**

Department of Military and Emergency Medicine, published two articles in Military Medicine, *Overview of Overseas Humanitarian and Civic Assistance* and *Military Training and Humanitarian and Civic Assistance*, during 2003.

(*See Section I, Military Unique Curriculum, of the USU Journal for additional information on the Department of Military and Emergency Medicine.*)

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Neurology - School of Medicine.

***Departmental Activities*:** The Department of Neurology has oversight for three Congressionally mandated programs:

The Defense Brain and Spinal Cord Injury Program. This program, established in 1992, continues to provide care and research for patients with brain and spinal cord injury throughout the DoD and VA hospitals. Funding was received for the program, in 2003, in the amount of $10 million;

The Post-Polio Syndrome Program. Established in 2000, this program provides patient care and research in the area of Post-Polio Syndrome (PPS). A large multi-center protocol began, during 2002, to include the following collaborators: USU; the Conemaugh Health Program in Johnstown, Pennsylvania; the Walter Reed Army Medical Center; the National Institutes of Health; and, the National Rehabilitation Center. This protocol investigates the cause of PPS and researches treatment effectiveness against symptoms; additional treatment and investigative protocols are being developed. Funding was received for the program, in 2003, in the amount of $3.2 million; and,

The Neuroscience Program. This program was established during 2001; it investigates the cause and researches preventive and treatment options for neurological patients suffering from stroke, spinal column issues, headaches, epilepsy, and pain. The collaborative institutions include: USU; the Conemaugh Health Program in Johnstown, Pennsylvania; the National Naval Medical Center (NNMC); and, the Walter Reed Army Medical Center. Ongoing protocols focus on headache and stroke. Future protocols are being developed for studying epilepsy, spine problems, and pain. The Navy plains to establish a Spine Center at the NNMC. Funding received for the program, in 2003, was $5.4 million.

Individual Contributions.

Lieutenant Colonel Geoffrey Ling, MC, USA, Professor, USU SOM Department of Neurology, was appointed to the National Institutes of Health's PULSE (Post-Resuscitation and Utility of Life Saving Measures) Committee. He was also named Chair of the PULSE Subcommittee on Central Nervous System Trauma. Doctor Ling was the organizer of the first Brain Injury Symposium, held at USU, on June 3, 2002; and, he has been the guest speaker and expert advisor at five major military meetings, to include one held in Russia, during 2002. On February 10, 2004, the Newswire Service featured Dana Reeve, wife of actor, Christopher Reeve, a Director of the Christopher Reeve Paralysis Foundation (CRPF) and Chair of the Quality of Life Committee, and Doctor Ling. Ms. Reeve visited the Walter Reed Army Medical Center to present a Quality of Life Grant check to the Henry M. Jackson Foundation for the Advancement of Military Medicine for the Defense Spinal Cord and Column Injury Center (DSCCIC). The DSCCIC, which is funded by the Henry M. Jackson Foundation, was awarded a $21,900 Quality of Life Grant to create a newsletter and implement a website to supply information about

the DSCCIC to people living with spinal cord and column injuries, medical practitioners, and policy makers. Dana Reeve was joined by Doctor Geoffrey Ling, Director, DSCCIC, as well as other leaders in the field, during the presentations. Originally conceived by Dana Reeve, the Quality of Life Grants are awarded twice yearly and intended to help in activity categories such as: sports; arts; education; outdoor recreation; advocacy; employment; and, assistive technology. In the second half of 2003, CRPF awarded $713,897 to 103 nonprofit organizations nationwide.

Ajay Verma, M.D., Ph.D., Associate Professor, USU SOM Department of Neurology, published a military relevant paper in the September 2002 issue of Cancer, *Immunohistochemical expression of erythropoietin and erythropoietin receptor in breast carcinoma*. And, in the November 21, 2003, Volume 302, issue of Science, Doctor Verma was featured in an article that discussed his discovery of carbon monoxide (CO) as a neurotransmitter, in addition to neuroscientists from Johns Hopkins, whose work includes nitric oxide (NO) as a neurotransmitter. Unlike all other types of so-called neurotransmitters, a gas can be neither stored inside a neuron nor carefully controlled after its release, thus violating some sacred-held tenets of neuroscience. Until recently, CO was thought to be nothing more than a waste product of heme oxygenase-1, which breaks down the iron-containing pigment heme in aging red blood cells. Since the early 1990's, Ajay Verma, has been looking for other gaseous neurotransmitters to accompany nitric oxide.

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Obstetrics and Gynecology - School of Medicine.

Departmental Overview. 2003 was a year marked by significant accomplishments in all aspects of scholarship - discovery, integration, clinical care, and teaching as well as in leadership and community service in Obstetrics and Gynecology. Of particular note, was the retirement, on June 30, 2003, of the founder of the Department's Research Division, **Prabir K. Chakraborty, Ph.D., Professor and Head of the Research Division**. Doctor Chakraborty became a pioneer in academic Obstetrics and Gynecology (OBG) when he was appointed by Douglas R. Knab, M.D., Founding Chair of the Department, to establish one of the earliest programs of research in OBG, which was dedicated to the discovery of new and critical knowledge and to providing an educational opportunity in research for faculty, fellows, residents, medical students, post-doctoral students, graduate, college, and even high school students. Doctor Chakraborty leaves a remarkable legacy following over 20 years in the Department. In fact, Doctor Chakraborty has continued to publish as an off-campus member of the OBG faculty; since his departure, he and his colleagues have published *Aberrant Interchromosomal Exchanges Are the Predominant Cause of the 22q11.2 Deletion* in Human Molecular Genetics, Volume 13, No. 4, on December 17, 2003.

Individual Contributions.

Colonel Andrew J. Satin, USAF, MC, Professor and Chair, USU SOM Department of Obstetrics and Gynecology, USU SOM Class of 1986, became the first USU SOM Graduate to be appointed a Department Chair at USU, following a national search. Doctor Satin is Board Certified in Maternal-Fetal Medicine and Obstetrics and Gynecology. As the Residency Program Director, he led the program from Provisional Accreditation status to Full Accreditation for the maximum possible length of five years. A nationally recognized expert in labor stimulation and labor management, Doctor Satin has authored over 100 peer-reviewed manuscripts, abstracts, and book chapters. In addition to his duties at USU, Doctor Satin serves as an Oral Examiner for the American Board of Obstetrics and Gynecology, a Member of the Editorial Board of Obstetrics and Gynecology, and he has been appointed by the American College of Obstetricians and Gynecologists to the Committee on Practice Bulletins - Obstetrics.

William H.J. Haffner, M.D., CAPT, USPHS (Retired), Professor, USU SOM Department of Obstetrics and Gynecology, stepped down as the Department Chair, during 2003. He has assumed special assignments from the Dean of the School of Medicine, to include serving as the Chair of the Student Promotions Committee. Doctor Haffner is active in the Armed Forces District. He has served, or is currently serving, on several American College of Obstetricians and Gynecologists (ACOG) committees, including the Committee on American Indian Affairs, the Committee on Practice Bulletins - Gynecology, and the Committee on Health Care for Underserved Women. Doctor Haffner is currently the Secretary-Treasurer of the Association of Professors of Gynecology and Obstetrics.

Lieutenant Colonel (P) Ernest G. Lockrow, MC, USA, Assistant Professor, USU SOM Department of Obstetrics and Gynecology, joined the Department, in 2003, after serving as the Chief of Gynecology at the Walter Reed Army Medical Center. Doctor Lockrow is the only gynecologist in the

Department of Defense who is certified on the DaVinci Robot. He performed the first ever laproscopic vesico-vaginal fistula repair with omental - J flap using the DaVinci Robot, in October of 2003. Doctor Lockrow is currently developing a Continuing Medical Education Program in Obstetrics and Gynecology at USU.

Colonel Christopher M. Zahn, USAF, MC, Associate Professor, USU SOM Department of Obstetrics and Gynecology, serves as Director of Clinical Clerkships. As Coordinator and Director for all clerkship sites, Doctor Zahn has initiated Problem Based Learning (PBL) into the curriculum and has modified the Objective Structural Clinical Examination (OSCE) to include case development and standardization. Certified in Obstetrics and Gynecology and Pathology, Doctor Zahn developed and directed a ***Gynecologic Surgical Pelvic Anatomy and Dissection Course***. In addition to his duties at the University, he served as the Air Force Consultant to the Surgeon General and as the Chair of the Air Force Section of the American College of Obstetricians and Gynecologists.

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Pathology - School of Medicine.

***Individual Contributions*.**

Robert M. Friedman, M.D. Professor and Chair, USU SOM Department of Pathology, provides nine hours of lecture in ***Pathology 2010***; he is an Instructor in ***Small Group Case Studies*** (eight hours); and, an Instructor in the ***Pathology Laboratory*** (where he serves as a substitute for all instructors). Doctor Friedman is a Member of the Board of Scientific Advisors at the Armed Forces Institute of Pathology; a Lecturer in the Graduate Education Courses in the USU SOM Department of Pathology and the USU Graduate School of Nursing; a Member of the USU Policy Committee for Names and Honors; and, a Special Assistant to the Director of the United States Military Cancer Institute. Doctor Friedman's research activities include a National Cancer Institute grant on *Inhibition of Human Oncogene Expression by Interferon*, a study of the mechanism of tumor differentiation induced by treatment with interferon. This year, his research has uncovered important parameters of the stimulatory effect of nuclear regulatory factor IRF-1 on cellular growth. The research funded by this grant has also studied the role of the enzyme *lysyl oxidase* on cell transformation and the relation of this effect to IRF-1. These findings appear to be of significance in the genesis and the possible treatment of cancers. His publications are on the *Deregulated Expression of Interferon Regulatory Factor* and on *Oncogene-Transformed Mouse Fibroblasts*. Doctor Friedman also has two additional manuscripts in preparation. Recently, Doctor Friedman was honored by a reception at the United States Embassy in New Delhi for his 20 years of contributions to Indo-US Collaborative Research in the Biomedical Sciences. He was also named Elected Honorary Member of the International Society for Interferon and Cytokine Research in recognition of his outstanding scientific and administrative achievements in the field of cytokine research. He serves on the Editorial Board of the Journal of Interferon and Cytokine Research; and, he is an Adjunct Professor in the Department of Pathology at Georgetown University. Doctor Friedman also serves as an *Ad Hoc* Reviewer for Nucleic Acid Research, the Journal of Virological Methods, and Analytical Biochemistry. ***After 24 years of dedicated leadership and service to the USU SOM Department of Pathology and USU, Doctor Robert Friedman announced, in late October of 2003, that he would step aside as Chair upon the completion of a search process for a new Department Chair. He will remain on the faculty as a Professor of Pathology with increasing roles and responsibilities in the United States Military Cancer Institute*.**

Colonel Richard M. Conran, MC, USA, Professor, USU SOM Department of Pathology, is a Consulting Pathologist to the National Naval Medical Center (NNMC) and the Department of Pediatric Pathology at the Armed Forces Institute of Pathology (AFIP). He also serves as the Course Director for the ***Pathology MSII Course***; and, he is as an Instructor in the ***Pathology Laboratory Course*** and the ***Pathology MSII Small Group Case Studies***. As part of his collaborative efforts, he is a Lecturer in the EID Graduate Education Program on ***Fundamentals of Infectious Diseases***; and, he is a Lecturer in BioChemistry on ***Clinical Correlation in Histology***. Doctor Conran provides pathology support for the ***Squamous Cell Carcinoma of the Esophagus Protocol*** at the National Institutes of Health and for the ***Quick Clot Protocol*** at USU. In addition, Doctor Conran serves as a Co-Investigator on the ***DNA Identification Protocols*** at the Armed Forces Institute of Pathology.

Sara Contente, Ph.D., Research Assistant Professor, USU SOM Department of Pathology, is a member of the USU IACUC Committee; she is currently working on the mechanism of action of an important tumor suppressor gene; this work continues to receive wide and favorable notoriety. As a part of her collaborative efforts, Doctor Contente serves as a Lecturer on ***Techniques in Cellular and Molecular Biology (MCB0801)*** and ***Nucleic Acid Probes and Hybridization and DNA Sequencing and Transection***.

Mary Lou Cutler, Ph.D., Associate Professor, USU SOM Department of Pathology, taught courses for the Molecular and Cell Biology (MCB) and Pathology Graduate Education Programs; in addition, she is the co-director of the MCB Cell Biology Courses for graduate students. (During 2003, Doctor Cutler was the Co-Course Director of ***MCB 507-508, Cell Biology I*** and ***II***; she was also a Lecturer in ***MCB 508, Cell Biology II***; and, she presented lectures on ***Techniques in Cell and Molecular Biology*** and ***Advanced Virology***.) Currently, there is one graduate student working full time on her dissertation research under Doctor Cutler's direction; and, one student from the MCB Program is completing a three-month rotation in her laboratory. Her research program focuses on the regulation of mammary epithelial cell differentiation. In particular, she is interested in the mechanism by which activation of the Ras pathway disrupts mammary epithelial differentiation. The Ras pathway is frequently activated by signaling from the ErbB receptors in breast tumors, and activation of this pathway is characteristic of more aggressive tumors. Doctor Cutler and her staff are interested in determining which of the effector pathways activated by Ras is responsible for the block in differentiation. Her recent findings have demonstrated that activation of the Raf-Mek-Erk signal transduction pathway by the epidermal growth factor family of mitogenic peptides results in the inhibition of mammary differentiation by inhibiting Stat5, an obligate transcription factor for the expression of genes involved in lactogenesis. In addition, the activation of the Ras pathway prevents the normal down-regulation of the expression of Mek-1 and other kinases and scaffolding proteins that constitute the Raf-Mek-Erk signaling complex. The research in her laboratory is currently supported by two grants. In addition to the graduate students, there are two post-doctoral fellows and a technician working in her laboratory. The laboratory has published one paper and has submitted three manuscripts for publication in the last six months. Doctor Cutler was in the process of preparing three grant applications for submission in May and June of 2004, to include a new NIH R01 application. Her duties as the Associate Director for Basic Science of the United States Military Cancer Institute (USMCI) involve promoting basic science in cancer research at USU and at the other USMCI institutions. This year, the USMCI is initiating a small funding program for collaborative cancer research. She prepared the funding announcement and arranged for the review of applications for collaborative grants in breast and prostate research. These grants will be available to researchers at USU. In addition, Doctor Cutler arranged seminars for invited speakers and organized the scientific program for the USMCI annual meeting. As the Associate Director for Basic Science, she serves on the USMCI Executive Committee and reports to the USMCI Committee of Scientific Advisors on basic science research. Doctor Cutler serves on two grant review committees. One is the USU Merit Review Committee and the other is a study section for the Congressionally Mandated Medical Research Breast Cancer Program. In addition, Doctor Cutler serves on the Molecular Biology Advisory Committee to the American Type Culture Collection. She also is a member of the USU Biohazard Committee; she served as a member of the Search Committee for the Director of the Molecular and Cellular Biology Graduate Program; she is a lecturer in the FAES Course, ***Genetics of Cancer***; and, she serves as a member of the National Institutes of Health (NIH) Breast Cancer Think Tank.

Michael J. Daly, Ph.D., Associate Professor, USU SOM Department of Pathology, successfully submitted a Patent Application to the United States Patent and Trademark Office, sponsored by USU on *Radioactive Waste Detoxification*. Doctor Daly was appointed to serve on the Committee on the Origins and Evolution of Life, National Academy of Sciences, from 2003 through 2005; and, from 2000 through 2002, he served as a member of the Committee on Planetary and Lunar Exploration, National Academy of Sciences. Between 1999 and 2001, Doctor Daly served as a member of the Planetary Task Group for the National Academy of Sciences; and, from 1997 to present, he has served on Peer Review Panels for the Department of Energy. From 2002 to the present, he has supported the efforts of the USU Homeland Defense Committee, through the Broadcasting of Education Programs to the Armed Forces. From 2001 through 2004, Doctor Daly has been serving as a member of the USU Radiation Safety Committee. In addition to these activities, Doctor Daly obtained $40,000 from the Department of Energy to service and recharge the USU Co-irradiator. On February 4, 2003, Doctor Daly was featured on Swedish Television (SVT), in a two-part documentary, *Life at Stake*; on January 6, 2003, he was featured by National Public Radio in *Radiation Resistance and Ring Chromosomes*. And, Doctor Daly's *Genome Informatics: Deinococcus* was published in GEO MAGAZINE in Germany, on September 8, 2002. His work has been featured in the media, since his appearance on ABC Nightline with Ted Koppel, in September of 1999. Beginning in 2000 throughout 2003, Doctor Daly served as a Lecturer and presented ***Laboratory Aspects of Biowarfare (PA0530)***; and, since 2001, he has lectured on ***Techniques in Cellular and Molecular Biology (MCB08-01)***. He serves as a Ph.D. Thesis Advisor for one student; and provides continuing education for eight post-doctoral and two pre-doctoral students for the Department of Pathology. Doctor Daly continues to study developing technologies for treating a $250 billion Cold War waste legacy.

Gabriela S. Dveksler, Ph.D., Associate Professor, USU SOM Department of Pathology, serves as the Chair of the USU Biosafety Committee; and, she serves as the Chair of the MCB Program Admissions Committee. Doctor Dveksler was selected by the National Institutes of Health (NIH) to serve as an *Ad Hoc* member of HED-1 Study Section, at the Institute of Child Health and Human Development. She also served as the Editor of PCR Primer: A Laboratory Manual, published by Cold Spring Harbor Laboratory Press, 2nd Edition, and released, in May of 2003. Doctor Dveksler serves as a Course Director for ***Techniques in Molecular and Cellular Biology (MCB801)*** at USU; and, ***Trac 9*** at FAES, NIH. She is also serving on three Thesis Committees for Pathology, Neuroscience and Molecular and Cell Biology graduate students; and, she serves as a mentor for two Molecular and Cell Biology graduate students.

Philip M. Grimley, M.D. Professor, USU SOM Department of Pathology, serves as a ***Pathology Core Course*** Lecturer on anemias and lymphomas. He is the Primary Instructor for the ***Pathology Laboratory Sessions*** with 24 students; and, he serves as an Instructor in small group cases with 8 students. In ***Histology for Pathologists***, he lectures on (1) blood and (2) the cardiovascular system; in the ***Pathology for EID Program***, he lectures on Tissue Pathology of Virus Infections (with clinical correlations); in the ***Biowarfare Course***, he presents a lecture on Insect Borne Virus Pathogens. In the ***Pathology Graduate Courses***, he lectures on Pathogenesis (CML) and, in the ***Interferon Course*** he lectures on IFN Antiproliferative Mechanisms (molecular signals). In the ***Molecular and Cell Biology Course (MCB508 Core Course)***, he lectures on (1) Cell Cycle and (2) Apoptosis. Doctor Grimley is a member of the College of American Pathologists Laboratory Accreditation Program and serves as a Commissioner for the State of Maryland. His participation contributes to the accreditation of five

military laboratories, which would otherwise need to supply personal and time to maintain accreditation. Doctor Grimley is also a member of the Study Section, of the DoD Breast Cancer Program. He is an Adjunct Professor at the University of Maryland; and, he participates in seminars and works with graduate students in the development of a Biowarfare Training Initiative. He is an active member of the United States Military Cancer Institute (USMCI) and serves on the USMCI Tissue Committee and participates in USMCI symposia. As a member of the USU Merit Review Committee, he conducts monthly patent applications reviews for the University. As a member of the USU Promotions Committee, he conducts quarterly reviews of faculty appointments and promotions. He is also an Ad Hoc Reviewer for the Journal of Immunology and the Journal of Biochemistry. Doctor Grimley's research is focused on *Therapeutic Modulation of Apoptosis*. He has obtained intramural funding from USU and has submitted for extramural support; he has two United States patents; and, he presented during USU's Research Day.

Elliott Kagen, M.D., Professor, USU SOM Department of Pathology, provides three lectures and 33 laboratory instruction sessions in the ***MSII General and Systemic Pathology Course*** with approximately 69 student contact hours. Doctor Kagen provides extensive lectures during the school year: 1) he lectures for the Pathology Graduate Student Program on *Oxidants and Acute Respiratory Distress Syndrome* (Topics in ***Pathogenesis Graduate Course*** - approximately two student contact hours); 2) he lectures in the Pathology Graduate Student Program on *Mitogen-Activated Protein Kinases in Lung Injury* (Topics in ***Pathogenesis Graduate Course*** - approximately one student contact hour); 3) he provides the ***Lecture and Microscope Session*** to the Emerging Infectious Disease Graduate Program on *Lung Infections*; 4) he lectures for the ***USU Occupational and Environmental Medicine Residency Program (PMO542)*** on *Occupational Carcinogenesis* - approximately two student contact hours; 5) he lectures on *Bioregulators as Instruments of Terror* in the Johns Hopkins University Graduate Course, entitled: ***BioTerrorism, Science and Policy: The International Scientific and Diplomatic Challenge of the 21st Century***; and, 6) he lectures in the ***Biotechnology Program*** of the Zanvyl Kragler School of Arts and Sciences, John Hopkins University, on *Scientific and Medical Aspects of Bioterrorism and Biowarfare*; *Scientists and Health care Community Preparing for the Challenge of Bioterrorism*; and, *Filoviruses as Possible Bioterrorism Agents*. In addition, Doctor Kagan serves as a regular Reviewer of Manuscripts for the American Journal of Respiratory and Critical Care Medicine, the American Journal of Respiratory Cell and Molecular Biology, Experimental Lung Research, and Environmental Health Perspectives. Doctor Kagen served as an *ad hoc* Reviewer for the National Institutes of Health (NIH) Chemical Pathology Study Section, Oncological Sciences Integrated Review Group, in Washington D.C.; and as an *ad hoc* Member of the NIH Lung Biology and Pathology Study Section in Washington, D.C., since May of 2002. Doctor Kagen has also served as the Chairman of the Technical Review Panel for the Nebraska Cancer and Smoking Disease Research Program, in Omaha, Nebraska, on April 19, 2003 (approximately 40 hours commitment). Since February of 2002, Doctor Kagen has been a member of the External Advisory Committee, Xavier University/Tulane University NIEHS-funded ARCH Research Program; and, he has served as an ad hoc Reviewer for the Cooperative Grants Program of the United States Civilian Research and Development Foundation (CRDF), since July of 2001. In addition, Doctor Kagen has served as an *ad hoc* Reviewer for the Veterans Administration Merit Review Board, since March of 1987. Doctor Kagen is the Principal Investigator on a DoD research grant, *A Pathogenesis of Filovirus Infection by Aerosol Challenge*, with a project period from October 1, 2002 through September 30, 2003. And he is the Principal Investigator on an exploratory NIH research grant: *Biodefense Against an Aerosolized Ebola Threat*, which is funded from July 1, 2003, through June 31, 2005; his application

received a Priority Score of 1.26 by the Lung Biology and Pathology Study Section in February of 2003, purportedly the best-ranked application of all proposals submitted on that round to this particular Study Section. During the past year, Doctor Kagan was a Distinguished Visiting Pulmonary Scholar to the Duke University Medical Center, North Carolina State University College of Veterinary Medicine, and the National Institute of Environmental Health Sciences, on March 4-6, 2003. He was a Platform Speaker on the Panel on Bioterrorism at the Society of Toxicology Annual Meeting held in Salt Lake City, Utah, on March 10, 2003; his presentation was entitled, *Speculations on Bioregulators as Instruments of Terror*. He was a Distinguished Visiting Scientist at the University of California Davis, Center for Comparative Respiratory Biology and Medicine, on May 22-23, 2003; and, he was a Platform Speaker at the 99th American Thoracic Society International Conference, held in Seattle, Washington, on May 19, 2003.

Colonel Morton H. Levitt, USAF, MC, USU SOM Department of Pathology, serves as a Laboratory Instructor for 24 students in ***Pathology 2010***. He is also a Small Group Instructor and teaches 16 cases to eight students over four sessions. In the course of his instruction, Doctor Levitt prepares and delivers three lectures on Male GU, Bladder, and Nutrition. Doctor Levitt is the Chief of Clinical Pathology Education; and, he is the Director of Clinical Clerkships and the Webmaster for the Department Web Site. In addition, Doctor Levitt is the Course Director for ***Pathology 520***, for which he revised the syllabus, recruited and scheduled faculty, prepared a 60-page syllabus, prepared lectures and was responsible for the administration of the Course. He is the Co-Director of ***Pathology 531***, for which he has revised the syllabus, recruits and schedules faculty, and provides administrative oversight. At the Walter Reed Army Medical Center, Doctor Levitt teaches residents in ***Surgical Pathology***. Doctor Levitt serves as the Senior Officer Advisor for the Air Force and reviews all Air Force performance/ fitness reports and advises the USU President and USU Brigade Commander on all promotion activities for the active duty officers assigned to the University; he also attends Management-Level Reviews, as required at the Pentagon. Doctor Levitt also has served as the Chair of the USU Controlled Substances and Alcohol Inventory Board; as such, he developed policy recommendations, conducted annual surveys of all USU Departments, and prepared annual reports for the USU President. He has also provided service as an Admissions Interviewer. During each year, Doctor Levitt performs surgical Pathology, cytopathology and quality assurance services for the Walter Reed Army Medical Center (WRAMC), where he also teaches residents. As a Member and Vice Chair of the College of American Pathologists (CAP) Information Committee, he develops medical informatics courses, distance learning materials, and the CAP WWW Home Page; he also sets national policy standards for laboratory accreditation and coordinates, directs, and recruits faculty and teaches eight-hour Computer Roundtable Courses at the CAP national meetings. As a member of the CAP House of Delegates, he represents the State of Maryland and attends local briefings and legislative updates/training, as required. Doctor Levitt conducts on-site laboratory accreditation inspections at the request of the Regional CAP Commissioner or other CAP LAP Commissioners; he serves as either a team leader or team member. As a team leader, he is responsible for the recruitment of inspectors, all administrative matters, and the conduct of the inspection, as well as, leading inbriefs/outbriefs at the facility being inspected. He is also a member of the Duke University Medical Alumni Council; and, as such, he develops policy for medical alumni CME and other activities; he plans and coordinates a regional CME activity once each year as a Council Member. As a member of the College of American Pathologists, he attends national and regional workshops and seminars; and, as a member of the Armed Forces Institute of Pathology, he attends miscellaneous short and long courses, including the ***Anatomic Pathology Review and Update***. In addition, Doctor Levitt is an active member of the Maryland Society of Pathologists and attends monthly CME dinner meetings.

Radha K. Maheshwari, Ph.D., Professor, USU SOM Department of Pathology, actively serves as: a member of an NIH Study Section; a member the USU Graduate Education Committee; a Program Director in the USU Graduate Education Program; as a member of the Henry M. Jackson Foundation Committee for Graduate Fellowship; a member of the University BSL-3 Committee; a member of the United States Military Cancer Research Institute (USMCI); a faculty member in the USU SOM Molecular and Cell Biology and Emerging Infectious Diseases Graduate Education Programs; a member of the Graduate Students Thesis Committee; a mentor to area high school students; a coordinator of the Indo-US Activities at USU; and, as an Adjunct Professor at the Birla Institute of Technology and Science located in Pilani, India. During 2002, Doctor Maheshwari organized and lectured in two courses on ***Interferons*** and ***Topics in Pathogenesis***. He also lectured in the ***Emerging Infectious Diseases Course*** and lectured and participated in the ***Bioterrorism and BioDefense Course***; and, during 2003, he mentored both Graduate Education Students and Post-Doctoral Fellows. Doctor Maheshwari was an Invited Speaker at an *INDO-US Colloquium on Molecular Targets of Xenobiotic Exposure: Role in Susceptibility of Diseases*, held at the Industrial Toxicology Research Center in Lucknow, India, in January of 2003. He also was an Invited Speaker at an International Symposium and presented *Emerging Trends in Genomics and Proteomics, Education and Research* at the Birla Institute of Technology and Science in Pilani, India, during January of 2003. Significantly, in January of 2003, Doctor Maheshwari was recognized as the Organizer of 20 Years of INDO-USU Collaborative Efforts in Research and Education; and, he edited a *Summary of 20 Years of Collaborations*. Also during January of 2003, Doctor Maheshwari chaired the *Session on Bioremediation of Toxicants* at the Birla Institute of Technology and Science; and, he was an Invited Speaker at a symposium held at the Army Hospital in New Delhi, India, which was organized by the Armed Forces Medical Services, New Delhi, India, in January of 2003. On May 15-15, 2002, he was an Invited Speaker and presented *Combined Effects of Chemical and Weaponized Agents: Prevention and Treatment Strategies*, at a Symposium on Bioterrorism, during the USU Research Day activities. On June 9, 2002, he was an invited member to the International Federation of Shock Societies Council Meeting held in Big Sky, Montana. And, on March 15-16, 2002, Doctor Maheshwari was an Invited Speaker and presented *Overview on 20 Years of Indo-USU Programs: Present, Past and Future* at the International Conference on Population, Development and Environment, held at the Birla Institute of Technology and Science, in Pilani, India; he also chaired a Session on Environment and Health, during the same conference.

Clifford M. Snapper, M.D., Professor, USU SOM Department of Pathology, continued as a Lecturer in the ***MSII Pathology Course***, as well as graduate courses in Pathology, the Emerging and Infectious Diseases Program, and the Molecular and Cell Biology Program. He was recently appointed to the Search Committee for the new Chair for the Department of Pathology (Doctor Friedman announced in October of 2003 that he would be stepping down as the Chair of Pathology once the selection process for a new Chair has been completed). Doctor Snapper also continued to serve on the Executive Committee of the Molecular and Cell Biology Program. In addition, Doctor Snapper has established and served as the Director of the Institute for Vaccine Research (IVR), at USU, during 2003. He was able to do so with the support of the USU SOM Research and Education Endowment Fund. The IVR, centered in the Department of Pathology, is an interdepartmental effort, including the Department of Pediatrics, for the development of novel, universal strategies for enhancing antibody production to poorly immunogenic proteins, peptides, and polysaccharides. ***These antigens serve as vaccine targets for many bacterial and viral pathogens of clinical relevance to both military and civilian populations.*** In order to facilitate commercial development of any promising approaches and/or products arising from the basic and pre-

clinical studies conducted at the IVR, a Cooperative Research and Development Agreement (CRADA) was established between USU, Biosynexus, Inc., a Rockville, Maryland-based biotechnology company specializing in anti-bacterial immunity, and the Henry M. Jackson Foundation for the Advancement of Military Medicine (HMJF). The IVR currently has three major projects: 1) development of a novel protein carrier for protein-polysaccharide conjugate vaccines; 2) development of a novel DNA-RNA adjuvant for stimulating humoral and cell-mediated immunity; and, 3) evaluation of a novel reagent for preventing bacterial septic shock. The IVR has submitted a manuscript to the journal, Vaccine, on studies completed, which investigates the adjuvanting properties of IVR's novel DNA-RNA immunostimulatory hybrid molecule. In addition to Doctor Snapper, the IVR currently has three members, a senior Ph.D. scientist who serves as the Deputy Director, a post-doctoral fellow, and a lab technician. Doctor Snapper's laboratory has continued its studies on the mechanisms underlying the antibody response to *Streptococcus pneumoniae* in vivo. These studies include the role of dendritic cells, T cells, cytokines, co-stimulatory molecules, suppressor mechanisms, and Toll-like receptors. The mechanisms, underlying the induction of antibody isotype responses specific for both proteins and polysaccharides expressed by the bacteria, are compared and contrasted. In addition to revealing novel basic immunologic processes, these studies have implications for the design and development of vaccines, and other immunotherapies directed against extracellular bacteria. His laboratory currently has three post-doctoral fellows, one graduate student from the Molecular and Cell Biology Program, and one graduate student from the Emerging Infectious Diseases Program. Since the beginning of 2003, Doctor Snapper has published four senior author articles in peer-reviewed journals (three in The Journal of Immunology and one in Infection and Immunity), a review on dendritic cells in Microbes and Infection; and, a chapter on the immunology of *Streptococcus pneumoniae* for a book entitled, The Pneumococdcus. He also submitted a new R01 National Institutes of Health (NIH) grant for studying the role of Toll-like receptors in the innate and adaptive immune response to *Streptococcus pneumoniae*, which was pending review. Doctor Snapper has joined a multi-center collaborative effort to develop a new vaccine for *Streptococcus pneumoniae* that would be practical for the developing world. In this regard, a letter of intent was submitted to the Bill and Melinda Gates Foundation, via the NIH, for funding. He also is a Co-Investigator on an NIH Shared Equipment grant application to obtain funding for a new Electronic Cell Sorter. During 2003, Doctor Snapper was selected to the Editorial Board of the journal, Infection and Immunity; and, he has continued critically reviewing manuscripts for The Journal of Experimental Medicine, The Journal of Immunology, Infection and Immunity, and Vaccine.

Colonel J. Thomas Stocker, MC, USA, Professor, USU SOM Department of Pathology, serves as a Lecturer in the ***MSII Pathology Course***; he also is an Instructor in both the ***MSII Laboratory Course*** and the ***MSII Small Group Sessions***. As further examples of his collaborative support, Doctor Stocker was a Lecturer in the following: the ***Histology Course***; the ***Pediatric Seminars***; the ***CPC Conferences*** at both the Walter Reed Army Medical Center (WRAMC) and the National Naval Medical Center (NNMC); the ***Pathology Seminars*** at WRAMC and NNMC; the ***Public Health Course*** at USU; and, ***Autopsy*** at NNMC. During 2003, Doctor Stocker also served as a consultant for Pediatric and Pulmonary Pathology at the Armed Forces Institute of Pathology (AFIP); and, as a consultant for the Department of Defense on Legal Issues and Pediatric Pathology. He is also an Adjunct Professor of Pathology at the Georgetown University Medical School and Past President of the Society for Pediatric Pathology. His major interests include Pediatric Pulmonary Pathology, including acquired and congenital disorders such as Bronchopulmonary Dysplasia and Chronic Lung Disease of Premature Infants, Infantile Lobar Emphysema, Congenital Pulmonary Airway Malformation, and Sequestrations of the Lung.

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Pediatrics - School of Medicine.

Departmental Activities.

Pediatric Hematology/Oncology Program. *The following published articles are from the National Capital Consortium Pediatric Hematology/Oncology Subspecialty Residency Program Residents*.

Major Vinod Gidvani-Diaz, USAF, MC, USU SOM Class of 1996, and **Colonel Gary D. Crouch, USAF, MC, Associate Professor, USU SOM Department of Pediatrics, Program Director, Subspecialty Residency Program,** published *Telltale Markings: Medication Error Presenting as Altered Mental Status in an Oncology Patient*, Pediatrics in Review On-Line, in January of 2004. Doctor Gidvani-Diaz is a Teaching Fellow in the USU SOM Department of Pediatrics.

Joanne Sutton, LCDR, USNR, MC, Assistant Professor, USU SOM Department of Pediatrics, graduated from the National Capital Consortium Subspecialty Residency, in 2002; she is currently on staff at the Portsmouth Naval Medical Center. The following publications, written in collaboration with her colleagues, result from her work as a Pediatric Hematology/Oncology Subspecialty Resident: 1) *Increased Risk for Aplastic Anemia and Myelodysplastic Syndrome in Individuals Lacking Glutathione S-Transferase Genes*, Pediatric Blood and Cancer, 42(2), pages 122-126, February, 2004; this work was also presented as a platform presentation at the American Society of Pediatric Hematology/Oncology Annual Meeting in May of 2003; and, 2) *Genomic Instability in Bone Marrow Failure Syndromes*, the American Journal of Hematology, accepted for publication, in December of 2003.

The Department of Pediatrics Education Section Continues to Offer the Military Medical Humanitarian Assistance Course (MMHAC) to Uniformed Primary Care Providers from Around the World. Under the direction of its **Executive Director, Lieutenant Colonel (promotable) Jeffrey Lee Longacre, MC, USA, Assistant Professor, USU SOM Department of Pediatrics,** this course provides military health care workers with the knowledge and skills essential for the care of civilian populations during complex humanitarian crises. The two-day course emphasizes the perspective of population health and vulnerable populations in an austere environment of natural or man-made disasters. Unique interactive scenarios, taken from actual experiences of the instructors, bring attention to the strengths and weaknesses of the myriad of responders to any crisis. *The course is sponsored by the USU Department of Pediatrics and accredited for continuing medical education (CME) credit by the USU Office of Continuing Education for Health Professionals*.

Additional Activities of the USU Pediatric Education Section. The USU Pediatric Education Section, upon invitation, conducted a medical education workshop entitled, *Students' Clinical Observations of Preceptors (SCOOP)*, at the 37th Annual American Academy of Pediatrics/Uniformed Services Pediatric Seminar 2003, held in Washington, D.C. The Pediatric Education Section was also invited to conduct a medical education workshop entitled, *Students' Clinical Observations of Preceptors*

(SCOOP): Focusing Students' Observations of Preceptors in a Clinical Setting, at the Council of Medical Students Education in Pediatrics (COMSEP) Annual Meeting 2003, held in Broomfield, Colorado. *The Department of Pediatrics Education Section continues to offer the Uniformed Services Faculty Development Seminars (USFDS).* ***Under the direction of its Executive Director, Doctor Longacre, a variety of over 40 interactive medical education seminars are available for selection by the host site***. USU faculty subject experts facilitate seminars and workshops as well as provide professional consultation on medical education issues relevant to each specific program. Several pediatric training centers, such as the Keesler Air Force Medical Center, in Biloxi, Mississippi, and the David Grant Air Force Medical Center, at the Travis Air Force Base, California, benefited from this unique exportable faculty development opportunity. The course is sponsored by the USU Department of Pediatrics and accredited for continuing medical education (CME) by the USU Office of Continuing Education for Health Professionals.

The 17th Annual Pediatric/Pediatric Surgery Symposium*. Felipe E. Vizcarrondo, M.D., Assistant Professor of Pediatrics,** and **Lieutenant Commander Jeffrey R. Lukish, MC, USN, Assistant Professor of Surgery and Pediatrics,** co-hosted the **17th Annual Pediatric/Pediatric Surgery Symposium,** on June 12, 2003. The topic was *Multi-System Trauma in the Pediatric Patient*. **Martin Eichelberger, M.D., Director, Emergency Trauma and Burn Services, Children's National Medical Center, and Professor of Surgery and Pediatrics, George Washington University School of Medicine,** delivered the ***4th Annual C. Everett Koop Distinguished Lecture. Doctor Eichelberger's presentation was entitled, *Injury Control: The Vaccine for Pediatric Trauma*. Other speakers were **Dorothy Bulas, M.D., Director, Program for Diagnostic Imaging, Division of Diagnostic Imaging and Radiology, Children's National Medical Center**; **Kevin Creamer, M.D., LTC, MC, USA, Director, Pediatric Intensive Care Unit and Inpatient Services, Walter Reed Army Medical Center, Assistant Professor of Pediatrics, USU SOM**; and, **Cynthia Shields, M.D., LTC, MC, USA, Staff Anesthesiologist, Walter Reed Army Medical Center, Director of Education and Assistant Professor, USU SOM Department of Anesthesiology**.

The Pediatric Endocrinology Program*.** During 2003, the Pediatric Endocrinology Program in the USU SOM Department of Pediatrics experienced another productive year for military medicine: 1) ***nine articles were published in peer-reviewed literature by investigators in the program; 2) ***five abstracts were published*** by investigators in the Pediatric Division; 3) ***thirteen abstracts were presented*** by investigators at: the Uniformed Services Section, American Academy of Pediatrics Conference, held in Washington, D.C., on March 16-19, 2003 (eight presentations); the Endocrine Society Conference, held in Philadelphia, Pennsylvania, in June of 2003 (four presentations); and, the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics, held in Boston, Massachusetts, during November of 2003 (one presentation); and, 4) provided ***sixteen invited lectures and symposia*** at: Grand Rounds, Wilford Hall Air Force Medical Center (three presentations); Grand Rounds, Wright State University (two presentations); the Washington Hospital Center (one presentation); the National Institutes of Health (one presentation); the American Academy of Pediatrics, Orlando, Florida (four presentations); the Children's National Medical Center, Bethesda, Maryland (three presentations); the Foundation for Advanced Education in the Sciences (one presentation); and, the Endocrine Grand Rounds, Brown University School of Medicine, in Providence, Rhode Island (one presentation).

***Individual Contributions*.**

Ildy M. Katona, M.D., Professor of Pediatrics and Medicine, Chair, USU SOM Department of Pediatrics, retired from 23 years of active duty as a Navy Captain, in October of 2003. Following a national search, on November 14, 2003, the Dean of the SOM announced that Doctor Katona had been selected to serve as the Chair of the USU SOM Department of Pediatrics. During the past year, Doctor Katona served in the following positions of recognition: as a Clinical Guest Scientist, Pediatric Rheumatology, National Institute of Arthritis, Musculoskeletal, and Skin Diseases, National Institutes of Health; a Member of the Residency Review Committee (Pediatrics) of the Accreditation Council of Graduate Medical Education; an Associate Editor for the Journal of Immunology; and, a Visiting Professor and Rheumatology Grand Rounds Speaker, presenting *The Spectrum of Streptococcal-Related Diseases: Rheumatic Fever and Beyond* at the Hospital for Special Surgery and Rockefeller University, New York, New York. In addition, Doctor Katona collaborated with Doctor Laura M. Mirkinson on the chapter, *Juvenile Rheumatoid Arthritis* in Conn's Current Therapy, 2003, R.E. Rakel and E.T. Bope, eds., W.B. Saunders Company, Philadelphia, Pennsylvania, pages 1059-1064.

Janice L. Hanson, Ph.D., Research Assistant Professor, USU SOM Department of Pediatrics, in collaboration with **Colonel Virginia Randall, MC, USA, Associate Professor, USU SOM Department of Pediatrics,** received funding from the United States Army Medical Research and Materiel Command (USAMRMC) to conduct a needs assessment of military families with children with life-threatening illnesses. This two-year grant is part of a collaborative project with the Walter Reed Army Medical Center, Children's Hospice International, and the Maryland Coordinating Center. The project will determine the needs of children with life-threatening illnesses and their families, analyze how the TRICARE benefit addresses those needs, assess existing community resources, and make recommendations for improving care and services. ***Experiences with Exceptional Family Members*.** With continued funding from the Health Resources Services Administration, United States Department of Health and Human Services, *Doctors Hanson and Randall furthered the involvement of patients and family members as advisors and co-teachers in medical education*. These advisors have chronic medical conditions and/or disabilities, or they have a child or other family member with a special need. They share their experiences with medical students, during all four years of the curriculum. A new activity developed with input from these advisors presents pediatric applications of evidence-based medicine. *Doctor Hanson convened focus groups of the advisors to develop descriptions of physicians' professionalism from the perspective of patients and parents, with plans to develop tools to teach and evaluate professionalism among medical students*.

Lieutenant Commander Christine L. Johnson, MC, USN, Assistant Professor, USU SOM Department of Pediatrics, NCA Site Coordinator - Third-Year Pediatric Clerkship, Fourth-Year Pediatric Programs Director, and Pediatric Grand Rounds Coordinator, was one of seventy individuals, selected nationally, to attend the Emerging Leaders Workshop of the Sixth National Environmental Public Health Conference: *Preparing for the Environmental Health Challenges of the 21st Century*, sponsored by the Centers for Disease Control (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR). As a participant of this elite group, Doctor Johnson collaborated with

public health professionals from around the Nation, to discuss public health challenges and opportunities. As a member of the American Academy of Pediatrics Committee on Environmental Health Education, Doctor Johnson was integral to the publication of the 2nd Edition of Pediatric Environmental Health, a comprehensive guide for clinicians on the identification, prevention, and treatment of childhood environmental health problems. Doctor Johnson continues to advocate for medical education in the area of *Pediatric Environmental Health* as an invited speaker at numerous academic and scientific meetings.

Lieutenant Colonel Woodson Scott Jones, USAF, MC, Assistant Professor, USU SOM Department of Pediatrics, Pediatric Clerkship Director, enjoyed, during 2003, the successful culmination of several years of collaborative work with the Children's Hospital of Pittsburgh in the evaluation of ear examination skills in residents, medical students, and other medical care providers. Given that the economic cost of ear infections annually ranges at the several billion dollar level, there has been a tremendous interest in evaluating and improving diagnostic skills of medical providers. Doctor Jones had two publications within six months, one in the most recognized publication in pediatric medicine, Pediatrics. The relevance of this research is evident in that the professional news publication, Pediatric Infectious Diseases in Children, included an article recognizing and further distributing Doctor Jones' significant findings.

Lieutenant Colonel (promotable) Jeffrey Longacre, MC, USA, Assistant Professor, USU SOM Department of Pediatrics, participated in numerous activities and made significant contributions, during 2003: 1) he participated on an interagency team consisting of members from the Environmental Protection Agency (EPA), United States Geological Survey (USGS), and the Armed Forces Institute of Pathology (AFIP) to evaluate the ecological and health effects following a copper mine tailing spill on the Island of Marinduque, by invitation of the Philippine government; 2) Doctor Longacre participated on the Clinical Judgment Analysis (CJA) Task Force, sponsored by the National Board of Medical Examiners (NBME). The Task Force was charged with developing a pilot program to assess and understand the cognitive mechanisms used by health care providers and trainees in making clinical decisions; 3) he contributed to the Ambulatory Pediatric Association's (APA) *Educational Guideline Revision Project*, by invitation from the APA. The Project updated the *Educational Guidelines* for pediatric trainees in order to reflect a more competency-based curriculum; and, 4) as Executive Director of the ***Military Medical Humanitarian Assistance Course,*** he was interviewed by the American Academy of Pediatrics (AAP) as one of the authorities featured in *Military Training Helps Doctors Treat Kids in Post-War Settings*; the interview was published in the AAP News.

Kathleen B. Madden, Ph.D., Research Assistant Professor, is a Co-Investigator on a five-year, $1.25 million National Institutes of Health (NIH) grant awarded to **Terez Shea-Donohue, Ph.D., Research Professor of Medicine, USU, and Research Physiologist, United States Department of Agriculture (USDA)**, entitled, *GI Nematodes and Gut Functional Responses to Inflammation*. Doctor Madden's primary research interests are in the field of immuno-parasitology, with special emphasis on cytokine regulation of the host's response to infection with gastrointestinal nematodes. Doctor Madden works in collaboration with **Ildy M. Katona, M.D., Professor of Pediatrics and Medicine, and Chair, USU SOM Department of Pediatrics**, delineating cytokine regulation of mucosal mast cell hyperplasia;

and, she also works with Doctor Terez Shea-Donohue investigating neuroimmune regulation of gut epithelial cell function. Doctor Madden presented a portion of her research at the annual meeting of the American Gastroenterological Association, held in Orlando, Florida, in May of 2003.

Merrily P.M. Poth, M.D., Professor, USU SOM Department of Pediatrics, was responsible for significant contributions, during 2003: 1) Doctor Poth participated in the Food and Drug Administration (FDA) Section on Orphan Drugs - Peer Review Panel for Grant Proposals, in June of 2003; 2) she was a member of the National Aeronomics and Space Administration (NASA) Clinical and Operational Medicine Panel - Peer Review Committee, during October of 2003; 3) Doctor Poth presented a lecture at the American Academy of Pediatrics Annual Meeting, held in New Orleans, Louisiana, during the November 2003 Meet the Professor Session entitled, *Common Endocrine Problems*; and, she presented a two-hour seminar entitled, *Thyroid Disease for the Primary Care Pediatrician*; 4) she was an invited Discussant at the International Workshop, *Role of Environmental Factor on the Onset and Progression of Puberty*, held in Chicago, Illinois, in November of 2003; 5) she works on a research project, *Physiologic and Endocrine Correlates of Overweight and Obesity in African Americans and Caucasians*, as a co-investigator with **Patricia A. Deuster, Ph.D., Professor, USU SOM Department of Military and Emergency Medicine,** Principal Investigator; the project was funded by the Department of Defense Peer Review Projects, for approximately $240,000 per year for four years, with funding beginning in October of 2003; and, 6) Doctor Poth published with her colleagues (to include an fourth-year USU SOM medical student, **Dalila Lewis**) an article entitled, *Inadequacy of In-School Support for Diabetic Children*, in Diabetes Technology and Therapeutics, Volume 5, pages 45-56, 2003.

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Pharmacology - School of Medicine.

Departmental Activities.

Importance and Significance of Research Programs in the Department of Pharmacology. The Department of Pharmacology's areas of research are important in the development of the discipline of pharmacology and for biomedical education. The Department's research strengths are in the major areas of molecular and cellular neuropharmacology and signal transduction mechanisms. The Department expects these areas will produce many valuable insights and are most likely to prove to be fruitful topics for continued research concentration. ***These areas also have implications for military medicine.*** Extreme and rapid changes in the environment are a frequent feature on the battlefield. Department studies explore the molecular, cellular, and systems implications of changes in the chemical or physical environment of an organism. These basic studies on the mechanisms underlying cellular adaptations may lead to ways of reducing the negative consequences of such adaptations while retaining the valuable features of adaptations enhancing survival.

Individual Research in the areas of Molecular and Cellular Neuropharmacology and Signal Transduction Mechanisms.

Suzanne B. Bausch, Ph.D., Assistant Professor, USU SOM Department of Pharmacology, continues her studies on *Synaptic Alterations in Epilepsy*. Doctor Bausch's research is made possible by funding from the National Institutes of Health (NIH), *Axonal Sprouting of GABAergic Neurons in Epileptogenesis*, the Epilepsy Foundation, *Activity and NMDA Receptor Activation in Epileptogenesis*, and the Department of Defense Brain and Spinal Cord Injury Program (DBSCIP), *Glutamate Receptors in Epileptogenesis*.

Beata Buzas, Ph.D., Research Assistant Professor, along with Doctor Brian Cox, addresses studies on the *Regulation of Opioid Systems in Pain, Injury, and Drug Tolerance*. Doctor Buzas research is made possible by funding from the Department of Defense Brain and Spinal Cord Injury Program (DBSCIP), *Neurochemical m/Medicators in Penetrating Brain Injury*, and the Defense/Veterans Head Injury Program, *Opioid Peptides and Oxidative Stress*.

Thomas E. Cote, Ph.D., Associate Professor, USU SOM Department of Pharmacology, focuses his studies on *RGS Proteins and Regulation of Opioid Receptor Signaling*. In the area of Signal Transduction Mechanisms, Doctor Cote studies *RGS Proteins and Regulation of Opioid Receptor Signaling*.

Brian M. Cox, Ph.D., Professor and Chair, USU SOM Department of Pharmacology, along with Doctor Buzas, addresses studies on the *Regulation of Opioid Systems in Pain, Injury, and Drug Tolerance*. Doctor Cox's research is made possible through funding from the National Institutes of Health (NIH).

Jeffrey M. Harmon, Ph.D., Professor, USU SOM Department of Pharmacology, continues his studies on *Regulation of Glucocorticoid Receptor Expression*.

J. Brian McCarthy, Ph.D., Assistant Professor, USU SOM Department of Pharmacology, focuses on both the *Mechanism of Structural Plasticity in the Brain* and the *Regulation of Synaptic Receptor Targeting*. Doctor McCarthy's research on the *Development of Dendritic Protein Synthetic Components*, is made possible through funding from the National Institutes of Health.

Aviva J. Symes, Ph.D., Associate Professor, USU SOM Department of Pharmacology, focuses his research on *Cytokine Regulation of Neuronal Gene Expression*. The Department of Defense Brain and Spinal Cord Injury Program (DBSCIP) funds Doctor Symes's research on *Molecular Mechanisms of TGF-beta Signaling in Glial Scar Formation after CNS Injury*. The National Institutes of Health (NIH) funds his research on *Cytokine Regulation of VIP Gene Expression*; and, the Christopher Reeves Paralysis Foundation funds his study on *The Role of Smad3 in Glial Scar Formation After Spinal Cord Injury*.

The research programs of **Doctors Bausch, Cote, Cox, Harmon, McCarthy** and **Symes** address issues relating to adaptations of the nervous system following changes in activity associated with an altered cellular environment or with application of external stimuli, injury, or other stresses. Doctor Bausch's electrophysiology laboratory examines various aspects of synaptic adaptation following seizures. Doctor Bausch's laboratory is examining structural adaptations in GABA and Glutamate synapses in the hippocampus, following repeated episodes of seizure activity. Doctor J. Brian McCarthy's laboratory investigates the targeting of metabotropic glutamate receptors, identifies sorting signals, investigates the hormonal regulation of structural modification in the nervous system, and explores the role of local protein synthesis in dendrites toward synaptogenesis in the hippocampus.

The molecular mechanisms underlying neural injury are also studied in the laboratories of Doctors Aviva Symes and Brian Cox. The Symes and Cox laboratories examine the release of cytokines in response to neural injury and their roles in the regulation of expression of neuropeptides. Doctor Symes's laboratory explores factors regulating the expression of vaso-active intestinal polypeptide (VIP) in the brain resulting from neural injury. Doctor Cox's laboratory studies the expression of endogenous opioids and their relevance to the control of pain and inflammation following injury to the nervous system. The Cox and Cote laboratories are also studying adaptations in opioid peptide and receptor function related to chronic drug exposure.

Impaired function of neurotrophins and oxidative injury associated with hyperglycemia have been demonstrated. Doctor Harmon is studying the function of glucocorticoid receptors in the central

nervous system. Doctor Reid examines factors controlling differentiation of neural precursor cells during neural development. Diseases that affect nerve cells often result in permanent, life-altering disabilities. More than 5,000,000 Americans are currently afflicted by a neurodegenerative disorder. In peacetime, over 8,000 Americans with traumatic brain injury (TBI) are admitted to military and veterans hospitals. ***In combat, traumatic brain injury accounts for at least 14 percent of surviving casualties and a disproportionate amount of acute and long-term combat casualty care resources. Understanding the genes that control neuronal generation and specification in the central nervous system would likely figure prominently in treatments aimed at replacing damaged nerve cells.***

These research programs relate to issues of critical importance to health care in a military environment. Seizure generation, impairment of learning and/or memory, and neurodegeneration are frequent consequences of accidental and battlefield neural injuries. Improved understanding of these events should lead to more effective therapies. These studies can be of great benefit to military personnel who are at increased risk of sustaining a brain injury, during the performance of their duties. Defining the mechanisms, that control brain development and brain formation, is critical to our understanding of normal developmental processes and may be a key to treating Alzheimer's and Parkinson's Disease. Collectively, these studies of adaptations of the nervous system, following changes in the neuronal environment, indicate the wide range of adaptive processes, that can occur in the nervous system, and point the way to potential novel therapies.

Doctors Harmon, Symes, and Cote are actively involved in addressing aspects of the function of critical cellular transduction systems. Doctor Harmon's laboratory is exploring the role of abnormalities in glucocorticoid receptor expression and/or function in impaired function of the hypothalamic-pituitary adrenal axis and in resistance to steroid therapy in cancer.

Doctor Symes is exploring the control of gene transcription in the nervous system by cytokines. These studies are beginning to elucidate fundamental changes in neural function that are induced by enhanced cytokine expression in neural injury.

Doctor Cote studies the role of GTP-binding proteins (G proteins) that mediate the actions of a very large number of neurotransmitters and hormones utilizing G protein coupled receptors (GPCR). Understanding the role of a novel family of G protein regulator molecules may lead to new understanding of the regulation of cell function by GPCR in general. ***These studies also have specific application to studies of tolerance and dependence to opiate drugs*** being studied in the laboratories of Doctors Cote and Cox.

These studies have important implication for the understanding of regulators of biologic functions at the molecular, cellular, and biological systems levels. ***Individual projects provide insight into the adaptive responses of the nervous system, the roles of glucocorticoids in post-traumatic stress disorders, and on cell communication and cell death in relation to the treatment of some cancers.***

The faculty members of Pharmacology consistently publish in peer-reviewed journals, serve as invited speakers at national and international meetings, and contribute substantial professional service at area High Schools, on boards of professional associations and societies, and as mentors and consultants in Summer Research Internship in Biological Sciences Programs.

(*See Section I, UNIVERSITY HONORARY DEGREES, AWARDS AND RECOGNITION, University Medal Recipients, 2003, for the posthumous tribute to* ***John Sarvey, Ph.D., USU SOM Professor of Pharmacology and Neuroscience,*** *who died on August 20, 2003*.)

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Preventive Medicine and Biometrics - School of Medicine.

Departmental Activities.

The Division of Aerospace Medicine has been providing course work in the area of Aviation Physiology for the past four years as a specialty track in the Master of Public Health Program offered by the Department of Preventive Medicine and Biometrics. This track consists of five courses: ***Aviation Operational Physiology I and II***; ***Aviation Human Factors***; ***Aviation Physiology***; and, ***Special Topics in Aviation Physiology***. This course of study prepares students for a career in the military as an Aviation Physiologist. Since its beginning in 1999, seven students have completed the program and three additional students have audited the course. Both of the students, who participated in the program during the 2000-2003 term, were accepted into the United States Navy's Program of Aerospace Physiology. The Division is expanding the program each year; the 2003 emphasis incorporated additional mishap investigation techniques; plans are to continue in this area, during 2004, bringing in a modeling segment. And, there are additional plans to develop a course in Hyperbaric Medicine, during 2004.

Division of Environmental and Occupational Health. The Environmental and Occupational Health (EOH) Division is responsible for the programs leading to the Ph.D. in Environmental Health Science as well as the Environmental and Occupational Health and Health Physics Master of Science in Public Health (MSPH) Degrees. The first PH.D. in Environmental Health Science was granted in May of 2003. Three Navy officers continue in the Ph.D. Program and 13 Navy, Air Force, Army, and Public Health Service officers are enrolled in the MSPH Program. The EOH faculty continue to provide support for the United States Marine Corps Chemical and Biological Incident Response Force (CBIRF), which includes formal classroom and laboratory training in gas chromatography/mass spectrometry. The support also provides CBIRF with continuing field-training experience and technical expertise during live agent training exercises and during times of incident response. The Division's role in military relevant research has rapidly expanded. ***Collaborative efforts involving rapid field detection of chemical warfare agents have been established with*** **the United States Marine Corps**, Marine Corps Systems Command, CBIRF; **the United States Army**, Soldier Biological Chemical Command, Medical Research Institute for Chemical Defense, Center for Environmental Health Research; **the Federal Bureau of Investigation**; and, **internationally** with the Defence Research and Development Canada - Suffield, and the DSO Laboratory Singapore. During 2003, the Division published three peer-reviewed manuscripts, seven editor-reviewed manuscripts, and two books.

The Division of Environmental and Occupational Health: Occupational Ergonomics Concentration. Recognizing the importance of occupational musculoskeletal injuries among military personnel and in response to the Army's request for specialty training in occupational ergonomics within the Master of Public Health (MPH) Program, a new area of concentration was established, the Occupational Ergonomics Concentration in the Department of Preventive Medicine and Biometrics Master of Public Health Program. The first student entered this program in July of 2002, and graduated, in June of 2003. The Occupational Ergonomics Program is the ***only*** established graduate-level injury prevention program in the Department of Defense.

The Division of Tropical Public Health. The Division of Tropical Public Health welcomed **Major Michael Sardelis** to the faculty. Major Sardelis joined the Division from the United States Army Medical Research Unit in Kenya, where he was the Chief of the Department of Entomology. In Kenya, he studied the transmission dynamics of malaria in the Lake Victoria Basin Region, examined the distribution and bionomics of potential dengue vectors in small coastal towns, and elucidated vector-related factors in the transmission cycle of African Tick Bite Fever, in the Masai Mara. Major Sardelis is a USU alumnus, Class of 2001, whose dissertation research focused on the ability of two non-indigenous mosquito species to change the field ecology of arborviruses of public health importance in the mid-Atlantic Region of the United States.

In the Division of Tropical Public Health, **Donald R. Roberts, Ph.D., Professor, Professor USU SOM Department of Preventive Medicine and Biometrics,** continues several lines of funded research, including a National Institutes of Health/National Science Foundation research program, in Belize, on assessing the impact of anthropogenic environmental change on malaria and malaria vector ecology, a NASA-funded research program to apply geographic information systems (GIS) and remote sensing technologies to the study of vector-borne diseases, and an investigation of malaria isolates from natural populations of mosquitoes in Northern Virginia.

The ***Diploma Course in Clinical Tropical Medicine and Traveler's Health*** graduated nine military and civilian physicians, during 2003. This intensive, 13-week course, one of only 12 worldwide, consists of eight graduate courses and prepares health care providers to diagnose, treat, and prevent tropical diseases globally. Graduates are eligible to sit for the certificate examination offered by the American Society of Tropical Medicine and Hygiene.

The First Fellow in the Occupational and Environmental Medicine Residency Program. **Major Michael E. Parker, MC, USA,** joined the Occupational and Environmental Medicine Residency as its first Fellow. Major Parker completed his Army-sponsored General Preventive Medicine Residency at the Harvard School of Public Health and the Madigan Army Medical Center. His post-residency assignment was forward deployed in Iraq with a Civil Affairs Battalion from Fort Bragg, North Carolina. He is the first Army Preventive Medicine Officer to return for an additional year of Occupational and Environmental Medicine training, as part of a new Army training initiative to allow cross training between Preventive Medicine ad Occupational physicians. This will make him eligible to take the American Board of Preventive Medicine (ABPM) Examination in the subspecialty area of General Preventive Medicine and Public Health. The current residency status is: four officers in the 2003-2005 (PGY-II); five officers in the 2002-2004 (PGY-III); and one officer in the 2003-2004 (PGY-IV); and, five officers are projected to begin, in July of 2004.

The Occupational and Environmental Medicine Residency Advisory Committee. Doctor William N. Yang assumed the Chair of the Occupational and Environmental Medicine Residency Advisory Committee (OEMRAC), during 2003. This residency is one of over 60 physician training programs in the National Capital Consortium (NCC). Doctor Yang is employed by the Emory Clinic, in Atlanta, Georgia, and serves primarily with Coca Cola Inc. providing Occupational Medicine clinical training in Atlanta and consultative services worldwide for Coca Cola, Inc. He was invited to speak at the International Meeting of the American College of Occupational and Environmental Medicine on

water sources and bioterrorism. Doctor Yang will oversee two meetings per year of the OEMRAC, which provides oversight and guidance to the residency staff. The OEM Program had six graduates in June of 2003: three Army officers; one Navy officer; one Air Force officer; and, one Canadian officer. During the Summer of 2003, all six graduates were recommended to the American Board of Preventive Medicine (ABPM) as being ready to be considered for eligibility for taking the Board Examination in the ABPM Specialty Area of Occupational and Environmental Medicine, in November of 2003, with results available, in early 2004.

Critical Decision Making for Medical Executives: Keys to Improving Population Health. ***Critical Decision Making for Medical Executives*** is a Military Health System (MHS)-relevant, actively managed course with a continuously updated curriculum. The Course Director regularly updates the course material with current year National Defense Authorization Act language, funding levels, regulatory changes, and the results of on-going management pilot programs. The ***USU Executive Skills Course*** exclusively reserves an entire day for hands-on experience with tools such as *TOC*, *PHOTO*, *CHCSII*, and other service and region specific decision support tools. The focus of the course is to equip health care professionals with the knowledge and tools needed to integrate clinical and business decisions to improve health care delivery and population health. The course is delivered using a combination of distance learning, traditional lectures and discussions, and a hands-on computer laboratory. It covers the following competencies as prescribed by the Joint Medical Executive Skills Group: Decision Making; Leadership; External Accreditation; Financial Management; Information Management & Technology; Personal & Professional Ethics; Organizational Ethics; Quality Management; Clinical Investigation; Integrated Health Care Delivery Systems; Quantitative Analysis; Outcome Measurements; and, Patient Safety. In 1993, a Joint Defense Task Force identified 34 competencies required of a military health care professional in order to command a DoD medical facility. In 1996, that number was increased to 40 competencies, following a census survey of health care management organization commanders and, that is the basis for the Executive Skills Core Curriculum. Since that time, the military medical departments have focused their efforts on assessing the executive skill needs of their medical leaders, developing training programs and offering courses to satisfy the jointly developed core curriculum. These activities are collectively accomplished under the purview of the Joint Medical Executive Skills Program (JMESP) in accordance with DoD Instruction 6000.15. The USU offers the ***Medical Executive Course*** to ensure that senior military health care executives possess the requisite professional administrative knowledge and skills to efficiently and effectively manage the Military Health System.

Individual Contributions.

Deborah C. Girasek, MPH, Ph.D., Assistant Professor, USU SOM Department of Preventive Medicine and Biometrics, co-authored an article with **Doctor Mark Wegner** (a former USU MPH student) on the readability of *Child Safety Seats*, which appeared in the journal, Pediatrics. The article received wide-spread media attention and resulted in the President-Elect of the American Academy of Pediatrics sending a commentary on the problem to pediatricians across the Nation. She was also invited to serve on the Guest Editorial Review Board for a special issue of the American Journal of Health Education, which was devoted to injury prevention. And, Doctor Girasek published an article exploring bereaved parents' interest in taking part in injury prevention campaigns in the journal, Death Studies.

Doctor Girasek also served on a Grant Review Panel for the Centers for Disease Control's National Center for Injury Prevention and Control.

(*See Section II, RESEARCH CENTERS AND PROGRAMS, The USU School of Medicine Department of Preventive Medicine and Biometrics, Graduate Education in Preventive Medicine and Public Health, and the Centers for Preventive Medicine and Public Health, and Section IV, for additional information on the Department.*)

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Psychiatry - School of Medicine.

***Individual Contributions*.**

Robert J. Ursano, MD., Professor and Chair, USU SOM Department of Psychiatry, Director, USU Center for the Study of Traumatic Stress (CSTS), appeared in the New York Times, USA Today, and The Washington Post and was interviewed by National Public Radio, during 2003, regarding traumatic stress associated with war and captivity. He also published a book review in the New England Journal of Medicine on November 6, 2003. In addition, Doctor Ursano served on the Institute of Medicine Committee on Responding to the Psychological Consequences of Terrorism. His leadership was instrumental in developing and advancing a national strategy that integrates mental health into a public health paradigm for terrorism management and response. This new model is of substantial consequence as it demonstrates how disaster psychiatry, a singular specialty significantly contributed to by the forging of military medicine and USU SOM faculty health care leaders in the 1980's, has become a recognized, valued and integral component for strengthening homeland security in this Century. The Committee's recommendations have been published in Preparing for the Psychological Consequences of Terrorism. A Public Health Strategy, the National Academies Press, Washington, D.C., 2003. Also during the past year, Doctor Ursano had an article published in The Lancet, *Prisoners of War: Long-Term Health Outcomes*, Volume 362, December 2003.

Lieutenant Colonel Charles C. Engel, Jr., MC, USA, Associate Professor, USU SOM Department of Psychiatry, Director, Center for Deployment Health and Assistant Chair for Research, is studying improving behavioral and rehabilitative elements of primary care, particularly in the occupational health care setting. Doctor Engel has multiple projects focusing on medically unexplained physical symptoms in the veteran population, primary care aspects of environmental risk communication, and evidence-based clinical practice guideline development and implementation. His research is funded by the National Institutes of Health, the Centers for Disease Control, the Department of Defense, and the Department of Veterans Affairs. Doctor Engel's work has been widely published in such highly respected medical journals, such as the Journal of the American Medical Association, the American Journal of Psychiatry, and Controlled Clinical Trials.

Carol S. Fullerton, Ph.D., Research Associate Professor, USU SOM Department of Psychiatry, Scientific Director of the Center for the Study of Traumatic Stress (CSTS), supervised the education of two CSTS International Disaster Psychiatry Fellows from Italy and the Defense University of Japan, as part of an international training program, which, over the past ten years, has brought ten participants from Japan, Singapore, Greece, Georgia, and Israel to the CSTS.

Doctor Robert Gifford, Research Psychologist, USU Center for the Study of Traumatic Stress, USU SOM Department of Psychiatry, is conducting a review of mental health operations during Operation Iraqi Freedom. He submitted a proposal for collaboration between USU and the National Committee for Employer Support of the Guard and Reserves to study the stresses on Reserve Component

members, who are called to active duty. Protocols for this collaboration were being developed, during 2003. Doctor Gifford was the former Deputy Director of the Walter Reed Army Institute of Research, who also developed a strategic plan for workplace management of mass violence.

CAPT Thomas Grieger, MC, USN, USU SOM Class of 1987, Associate Professor, USU SOM Department of Psychiatry, was appointed Assistant Chair for Research and Assistant Chair of Graduate Medical Education, during 2003. CAPT Grieger is coordinating mental health surveillance on soldiers wounded during Operation Enduring Freedom and Operation Iraqi Freedom. In addition, Doctor Grieger is currently conducting research on the long-term psychological effects of the *9/11* terrorist attack on members of the Pentagon staff.

Colonel Molly J. Hall, MC, FS, USAF, Associate Professor, USU SOM Department of Psychiatry, Director, Bioterrorism Education Project, Assistant Chair for Medical Student Education, has conducted extensive educational consultation on the psychological impact of disaster, terrorism and bioterrorism. She co-authored multiple articles on the psychological impacts of bioterrorism and provided teaching and training to multiple State and Federal agencies, including the Central Intelligence Agency, the Maryland State Office of Public Health Preparedness, and the Arizona State Emergency Management Authority. She provided ongoing consultation to the Maryland, Virginia, Washington D.C. Council of Government Bioterrorism Task Force, and The Animal Services Committee. Doctor Hall and members of the Center for the Study of Traumatic Stress (CSTS) wrote the guidance on mental health support to the Veterinarian Medical Emergency Assistance Teams as part of the National Medical Defense System (*Psychological Impact of the Animal-Human Bond in Disaster Preparedness and Response: Guidance for Veterinary Medical Assistance Teams*, VMAT Field Manual, FEMA/ National Medical Defense System, in press, 2004.) Also, during 2003, Doctor Hall worked with the Italian Embassy Scientific Attache to conduct the first trans-Atlantic educational initiative between the United States and Europe to combat bioterrorism. Twin conferences in Washington, D.C. and with Italy's NIH counterpart, introduced public health issues of bioterrorism to the European community, which employed a spacebridge to further achieve the distance learning objectives of USU. And, in February of 2004, Doctor Hall was recognized by Representative Steve Israel as a Local Legend from New York; this is an honor bestowed upon women physicians who have demonstrated commitment, originality, innovation, or creativity in their field of medicine. The Local Legend recognition is a companion project to an exhibition created by the National Library of Medicine, entitled, *Changing the Face of Medicine: Celebrating America's Women Physicians*.

Captain Derrick A. Hamaoka, USAF, MC, Instructor, USU SOM Department of Psychiatry, joined the Department, during 2003. He was previously assigned at the Wilford Hall Medical Center, where he served as the Chief Resident of the USAF Combined Psychiatry Residency Program with the University of Texas, San Antonio.

Lieutenant Commander Benjamin W. Jordan, MC, USN, Assistant Professor, USU SOM Department of Psychiatry, joined the Department, during 2003. He completed his Psychiatry Residency

Training at the National Capital Consortium Psychiatry Residency Program; and, he is also a board-certified Family Practice Physician.

He Li, M.D., Ph.D., Assistant Professor, USU SOM Department of Psychiatry, one of the Department's biological psychiatry researchers, published major findings in the Journal of Neuroscience, during 2003. This work advanced the basic neuroscience of emotional memory and fear and the role of the amygdala in post traumatic stress disorder. Currently, Doctor Li has a grant through the United States Army Medical Research Acquisition Activity, from 2000 through 2005, in the amount of $950,490, entitled, *Neuroplasticity and Calcium signaling in Stressed Rat Amygdala*.

Lieutenant Commander Lisa McCurry, MC, USN, Assistant Professor, USU SOM Department of Psychiatry, and **Brian Crowley, M.D., Adjunct Associate Professor, USU SOM Department of Psychiatry,** were both selected by the American Psychiatric Association to receive the Nancy C.A. Roeske, M.D., Recognition for Excellence in Medical Student Education Award, during 2003.

Colonel Ann E. Norwood, USU SOM Class of 1981, Associate Professor and Associate Chair of the USU SOM Department of Psychiatry, until May of 2003, accepted a position as the Senior Advisor for the Public Health Risk Communication Office of the Assistant Secretary for Public Health Emergency Preparedness at the Department of Health and Human Services. She continues to work closely with the USU Center for the Study of Traumatic Stress (CSTS) on multiple projects and to serve as the Director of the Disaster Preventive Psychiatry Fellowship.

Doctor Elizabeth Osuch, Assistant Professor, USU SOM Department of Psychiatry, has focused her research on the study of neurobiological and behavioral effects of exposure to extreme environmental stress. This includes functional and brain imaging studies in traumatized populations, such as people who have been in motor vehicle collisions. It also includes a major, new national initiative to develop a postmortem brain tissue collection for the study of the pathology of exposure to extreme stress.

Colonel E. Cameron Ritchie, MC, USA, Associate Professor, USU SOM Department of Psychiatry, was a student in the USU SOM Master of Public Health Degree Program, during 2003. Doctor Ritchie was quoted in the October 2003 edition of Ladies Home Journal in an article, *When Jenny Comes Marching Home*. The article discussed issues facing women in combat. Doctor Ritchie and her colleagues also published *Breastfeeding in the Military. Part I: Information and Resources Provided to Servicewomen*, and *Breastfeeding in the Military. Part II: Resource and Policy Considerations*, in Military Medicine, October 2003, 8(10), pages 807-816. Under the mentorship of USU CSTS faculty, Doctor Ritchie established an international presence working in Israel, Egypt, and Baghdad with State Department psychiatrists to improve mental health assessment and interventions following terrorism intrinsic to the Iraqi conflict. She coordinated a planning meeting held at USU with representatives from

the State Department, the National Institutes of Mental Health, Substance Abuse and Mental Health Services Administration, the World Bank, and non-governmental relief organizations on the DoD mission and objectives for assisting in rebuilding the Iraqi Mental Health System.

Nancy T. Vineburgh, Assistant Professor, USU SOM Department of Psychiatry, an expert in corporate health promotion and public education of mental health, directed the creation of an Office of Public Education and Preparedness (OPEP), under the USU Center for the Study of Traumatic Stress (CSTS), in June of 2003. The new office is charged with identifying programs and partnerships that will advance CSTS and USU's visibility, expertise, and funding for preparedness programs, especially in the workplace. OPEP and CSTS submitted a SAMHSA Knowledge Dissemination Grant to spearhead a national conference for workforce development of disaster response. A Task Force was formed to guide the conference, including Fortune 100 employers, such as Chevron, Texaco, Dupont, Citigroup, and industries designated by the Department of Homeland Security as high risk, including major organizations in sports and entertainment, energy, and agriculture. Assistant Professor Vineburgh established a working relationship with the Public Education Office of Homeland Security. She also attended a Global Symposium on Workplace Mental Health at the United Nations' International Labour Organization, held in Geneva, Switzerland, in October of 2003, to promote awareness of the CSTS role in organizational education and consultation.

(*See Section II, RESEARCH CENTERS AND PROGRAMS, USU SOM Department of Psychiatry and the Center for the Study on Traumatic Stress, for additional information on the faculty of the Department of Psychiatry*.)

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Radiology and Radiological Sciences - School of Medicine.

Departmental Activities.

In October of 2002, the Board of Regents approved the request to ***change the name of the Department of Radiology and Nuclear Medicine to the Department of Radiology and Radiological Sciences***. The name change was requested by the faculty of the Department to better reflect their diverse interests, talents, and research efforts in the Radiological Sciences. The name-change was incorporated, throughout 2003.

Radiological Sciences Division. Under the leadership of **CAPT Jerry Thomas, MSC, USN (Retired), Assistant Professor, USU SOM Department of Radiology and Radiological Sciences,** the Radiological Sciences Division continued to grow and provide advances in the area of digital image display and digital mammography, during 2003. The work to improve the diagnostic accuracy of medical image display systems and the development of quantitative methodologies for the evaluation of factors, which degrade diagnostic accuracy, has made substantial advances. A high speed diagnostic workstation, *TomoVIEW*, is being developed to display tomosynthesis images (i.e., slice and volume data) of the breast. This work is being done in conjunction with *ImageSMITHS*, in Germantown, Maryland.

The second generation tomosynthesis mammography imager, being developed in conjunction with General Electric Global Research, is progressing on schedule. This next generation machine will be able to visualize volume elements of breast tissue as small as 500 x 100 x 100 microns. Additionally, quantitative techniques, for determining the composition of these volume elements, have been completed. It is anticipated that the clinical prototype will be available for testing at the National Naval Medical Center, in early November of 2004.

Recently, **Commander David A. Schauer, MSC, USN, Assistant Professor, USU SOM Department of Radiology and Radiological Sciences,** left USU to become the Executive Director of the National Council on Radiation Protection and Measurements. His EPR tooth dosimetry research has been assimilated into the research program managed by CAPT Jerry Thomas. This very important work will soon provide a transportable EPR machine capable of *in vivo* measurements of dose; the anticipated lower limit of measurement is 50 rads. The device will provide a tool to evaluate both casualty radiation doses, as well as accumulated doses over a worker's lifetime.

Individual Contributions.

James G. Smirniotopoulos, M.D., Professor of Radiology and Radiological Sciences, Neurology, and Biomedical Informatics, and Chair, Radiology and Radiological Sciences, received approval for providing online continuing medical education (CME) and continuing nursing education (CNE) for his *MedPix* Program. The *MedPix* Program takes advantage of the *MedPix* Radiology Teaching File and provides one hour of Category 1 CME or 1.2 hours of CNE for every four *MedPix*

cases. USU now supports all of the DoD Diagnostic Radiology Residency Programs, by administering and hosting a common teaching file shared by all. *MedPix* has over seven thousand registered users, although registration is not required for simple case review. During 2003, the *MedPix* database was upgraded to include a secure webserver for log-in and user administration. MedPix has delivered more than 11,206,663 pages since September 3, 2000; it is one of the longest running *Case of the Week* programs in the world.

Doctor Smirniotopoulos was appointed by **Doctor Winkenwerder, the Assistant Secretary of Defense for Health Affairs,** as the DoD Representative to the National Advisory Council for the National Institute of Biomedical Imaging and Bioengineering (NBIB) at the National Institutes of Health (NIH). In addition, Doctor James Zimble, President, USU, appointed Doctor Smirniotopoulos to Chair the USU Strategic Planning Committee. During 2003, the goals and priorities for the USU Strategic Plan were defined and approved by the USU Board of Regents; and, a website was established for dissemination and feedback to the USU community.

Doctor Smirniotopoulas was, once again, in charge of the *Neuroradiology Case of the Day* at the world's largest radiology meeting - The Radiological Society of North America (RSNA), which was held in December of 2003. In addition, Doctor Smirniotopoulos participated in nine CME courses around the country; and, he was a featured speaker in Jasper, Canada, for the Annual Meeting of the Alberta Society of Radiologists. He was also a Visiting Professor and a Grand Rounds Speaker at five major universities, during 2003.

Doctor Smirniotopoulos and his colleagues have begun a *Teach the Teachers* project, sponsored by an educational grant from the RSNA ($50,000 per year for two years) to train six to eight African Radiologists in Tropical Imaging. This competitively chosen group will spend seven weeks at USU in classroom, small group, and independent study; they will then return to their home countries to *spread the word*.

USU Radiology now uses a web-based program for testing second-year medical students during their required course in ***Diagnostic Interpretation***. Between eight to ten quizzes are administered on-line and graded electronically, to include the electronic processing of the grades, which reduces paper consumption and transcription errors.

Colonel Tim Sanders, USAF, MC, Assistant Professor, USU SOM Department of Radiology and Radiological Sciences, and Radiology Consultant to the Air Force Surgeon General, joined the USU Department of Radiology and Radiological Sciences, during 2003. Doctor Sanders is a Musculoskeletal Radiologist and former Chair of Radiology at the Wilford Hall Air Force Medical Center.

Lorraine G. Shapeero, M.D., Associate Professor, USU SOM Department of Radiology and Radiological Sciences, was listed as one of America's Top Radiologists, 2002-2003. Doctor Shapeero was also an invited speaker at the International Skeletal Society, where she discussed her research on fast contrast-enhanced MRI for evaluating patients with soft tissue sarcomas, especially for their response to chemotherapy and long-term follow-up for recurrent disease. These tumors affect young adults, who

belong to the active duty population of the Uniformed Services. Doctor Shapeero also serves on the Board of Directors of the Association of University Radiologists and on the Executive Committee of the Alliance of Medical Student Educators in Radiology, both have a primary mission to improve and optimize teaching of radiology to medical students, throughout North America, in the uniformed and civilian sectors.

(*See Section I, Informatics - An Expanding and Essential Component of Education in the Health Sciences, for additional information on the Department of Radiology and Radiological Sciences.*)

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Surgery - School of Medicine.

***Departmental Background and Activities*.**

The ***USU Norman M. Rich Department of Surgery*** is comprised of a very talented, eclectic group of surgeons, who are involved in a variety of ways to provide extramural support for Clinical Services in the National Capital Area (NCA), and beyond. The faculty includes billeted Federal (civilian) and uniformed (active duty) officers, as well as, non-billeted members. The faculty can truly be described as *distinguished*. Members of the faculty have achieved prominence in surgery; and, they are nationally and internationally recognized as surgical leaders. They have served as Chairmen of Surgery in a variety of hospitals; they have also served as Hospital Commanders; and, they have been Program Directors. One recently-retired member of the faculty was formerly the Dean of the College of Medicine at the University of Virginia. Another active member was formerly the personal physician to Ronald Reagan, Former President of the United States. The faculty has been responsible for writing and publishing extensively. In addition, the faculty actively supports a number of professional organizations; and, members of the faculty serve, or have served, in leadership positions in many of those organizations. The faculty, therefore, is uniquely able to serve as a most positive role model for medical students who are interested in pursuing the fine art and science of surgery. Together, the faculty is involved in clinical support, teaching, research, readiness, and administrative support.

Clinical Support. Faculty members are credentialed at a variety of Federal and civilian hospitals in the NCA and elsewhere. They see and treat patients, help to conduct clinics, and are engaged in all forms of inpatient and outpatient care. Selected examples of clinical activities include conducting endoscopic clinics, doing endoscopic surgery, manning breast clinics, chairing cancer committees, and performing endocrine surgery. It is estimated that the clinical activities of the Department's surgical faculty account for over $3,280,000 in savings to the Nation each year, as cost avoidance generated for the Department of Defense; the Department of Surgery far outstrips all other USU SOM Departments in providing clinical services at the Military Treatment Facilities. The faculty participates in clinical activities in a variety of ways. At times, they are present in clinic as consultants to residents and students. At other times, they have primary responsibility for patients, with a busy in-patient service to manage. The Department has several faculty members who spend most of their clinical time at a local *Level 1* trauma center, MedStar; they have been most involved there, seeing and treating large numbers of trauma victims from the Washington Capital Area. Because of their presence at MedStar, the Department is able to rotate third-year medical students to the site, which gives them initial trauma-care experience. Also, residents from the Department's military centers go to MedStar for trauma experience. Several faculty members have appointments at the National Institutes of Health (NIH), and one active faculty member is also employed at the Department of State.

***Teaching*.** Medical education is a life-long process. In developing the Department's educational philosophy, primary consideration is given to curriculum, content and the amount of knowledge and skills that must be learned. In addition, the specifics encountered in a military-oriented medical school and the methods of transmitting this information are blended into the traditional medical school knowledge

base. The overall purpose of the surgical education program is to help the students to become life-long learners, able to apply knowledge to chosen careers in surgery, or to relate learned surgical knowledge, in a comprehensive manner, to other chosen career fields. This is accomplished by providing opportunities to learn what is known and to identify that which is unknown. In addition, students are encouraged to acquire skills in order to critically appraise, honestly debate, and respectfully disagree on clinical and technological matters. The developed curriculum includes progressive clinical knowledge with the integration of basic science and translation research, which offers a comprehensive and balanced learning environment. The *Socratic* method of learning is presented in a collegial and supportive manner, with curricular emphasis on the development of problem-solving and critical thinking. Learning gaps are identified, highlighted and discussed in order to stimulate faculty motivation and refocus on current teaching methods.

Faculty members are first, and foremost, teachers. They are teaching at every level, including the first-year ***Anatomy Course***, the third-year ***Clinical Rotations***, the fourth-year ***Subspecialty Rotations***, the ***Internship and Residency Rotations***, and there is some faculty participation with ***Post-Residency Fellowships***. Several faculty members have volunteered to be in mentoring programs for first and second-year medical students. Some faculty members are also mentoring residents in research projects. The first-year ***Anatomy Course*** is expertly led by a faculty member of Surgery, **Doctor Al Seyfer**. Approximately half of the instructors for this course have backgrounds in surgery. This particular course has served as a perfect opportunity to begin to explain the fine art and science of surgery to the students and to relate anatomy to clinical conditions. Because of this early engagement of medical students, the Department is able to see an increase in those who wish to choose surgery as their specialty, following graduation. Many of the faculty have participated, as well, in postgraduate courses, taught at both USU and outside of the University, including an extensive program of international courses. These courses have included ***Videoendoscopy***, ***Sentinel Lymph Node Biopsy***, ***Emerging Surgery Technology***, ***Surgical Ultrasound***, and ***Complex Laparoscopy***, etc. A recently instituted ***Course on Emergency War Surgery*** has been most successful in preparing Army surgeons, in Europe, for deployment to Iraq; and, the course has been taught in Wuerzburg and Heidelberg by **Doctors Hutton, Minken, Burris,** and **McHale**. This latest course continues the Department's tradition of taking education to uniformed physicians overseas, and by doing so, greatly enhancing their opportunities to keep abreast of new techniques. The USU National Capital Area Medical Simulation Center (SIMCEN) is headed by a member of the surgery faculty; he is recognized as a national leader in teaching through models and simulation. The Department continues to receive high interest, from outside of USU, in its educational endeavors at the SIMCEN and frequently welcomes international visitors. Such diverse topics as robotics, haptics, telemedicine, virtual reality, and computerization of medicine are addressed at the SIMCEN. The SIMCEN is where each third-year medical student is exposed to general surgery, beginning with the first day of the third-year ***General Surgery Rotation***. Each student is taught to do a surgery history and physical through the use of actors, videotapes and immediate feedback techniques; each is exposed to ultrasound principles, bronchoscopy, knot tying, resuscitation, and evaluation of the acute abdomen, etc. Following the first day at the SIMCEN, the third-year student has two days of hands-on surgery laboratory training, using a porcine live model under general anesthesia. The first day involves the abdomen, with a variety of procedures (splenectomy, gastrotomy, pyloroplasty, small bowel resection, and anastomosis, etc.); and, during the second day, the student is taught to insert a chest tube, perform a thoracotomy, a left pneumonectomy, and repair the aorta, etc. The faculty members all participate in this important three-day introduction to surgery.

Representing both the School of Medicine (SOM) and the University, the Department of Surgery has been actively involved in the development of the *Diploma in the Medical Care of Catastrophe* under the Auspices of the Apothecaries of London. This multi-disciplinary activity supports the SOM Dean's emphasis that the faculty should be a Community of Scholars. The examination is held at USU each Spring; until last September, the only recognized location, outside of London, for the examination. There are 33 Diplomats at USU. Related to the Anglo-American Exchanges and assisted by **Professor James Ryan of London**, who holds the first International Professorship at USU, there exists a Memorandum of Understanding between the Royal College of Surgeons of England and the Royal Defence Medical College with the USU Department of Surgery to conduct ***Definitive Surgical Trauma Skills***, with an average of three courses each year, in London, to prepare Military Surgeons for deployment to Afghanistan and Iraq.

Research. The faculty is involved in a number of large and important research projects, some of which have recently borne fruit in actual clinical application in wartime scenarios. The Department has been responsible for the development of novel, new products, which stop bleeding on the battlefield; and, which have been directly responsible for the saving of the lives of soldiers in Iraq. Many of the soldiers in Iraq are currently carrying ***QuikClot***, which was developed by several faculty members, in the USU Department of Surgery. Also, there are two large projects for the detection and treatment of breast cancer, one based at the Bethesda National Naval Medical Center (NNMC) and the other at the Walter Reed Army Medical Center (WRAMC), both are staffed and supported by the Department's faculty members. These large and sophisticated projects are Federally funded and involve clinical patient care, basic science research, and genetics with dedicated laboratories and suites at Bethesda and WRAMC, offering excellent patient access and care. In addition, there is an internationally recognized and extremely successful program originating at the Walter Reed Army Medical Center, which addresses prostate cancer, the ***Center for Prostate Disease Research (CPDR)***; the CPDR is administered and staffed by faculty from the Department of Surgery. This effort to address prostate disease is Federally funded and has earned recognition by the national media for the Department and its faculty. The number and quality of papers produced by the CPDR is unparalled. The CPDR has a large, separate facility located in Rockville, Maryland, as well as a presence at WRAMC, NNMC, and USU. In other areas, as well, faculty members have achieved distinction, throughout the Nation, as leaders in research in their respective fields. **Doctor William Bolger**, for example, is known in sinus surgery for a procedure, which he invented, called *bolgerization*; he is a reviewer for five *ENT* journals, a member of a national *ENT* committee, and a member of the Board of Directors of the American Rhinologic Society. Besides the above-mentioned activity, other important clinical trials are being conducted by faculty members at the various hospitals, especially in colon cancer and venous diseases, etc.

Readiness. The faculty of Surgery is fully committed to ensuring and supporting Military Readiness, in a variety of ways. Some active-duty members have recently been deployed. Most faculty members are continuing to teach, or direct, ***Advanced Trauma Life Support (ATLS) Courses***. **Doctor David Burris, United States Army, is the Chief of the Military Region (XIII) of the American College of Surgeons Committee of Trauma (ACS-COT)** and oversees all ATLS in the military. **Doctor Mark Bowyer is the Air Force State Chairman in the AXS-COT and oversees ATLS for the Air Force and at USU**. ATLS teaches the medical students about proper trauma care and prepares them to go to the field and save lives. The faculty have been at the forefront of new and innovative ways to teach

ATLS, using mannequins instead of animal models, through a very successful and on-going program. The Department averages about one ATLS Course every two, to three, months at USU. In addition, faculty members, at times, help to teach ATLS at outside courses, such as at NNMC and for other units deploying to combat situations.

Administrative Support. Faculty members have been most active in providing administrative services to the University. The Department has faculty members on the following USU committees: Admissions; Promotions; the Institutional Review Board; Curriculum; the Faculty Senate; and, the USU Space Committee. Currently, the Department has four members recently elected to the Faculty Senate, to include the Secretary. The Department of Surgery has faculty members who have conducted External Reviews of local residencies, as coordinated through WRAMC. Many of the Department faculty spend considerable time interviewing potential medical students; and, they work closely with the Promotions Committee to ensure that USU enrolls only the best and the brightest students. Faculty members continue to serve on search committees, to include those charged with the selection of Department Chairs. These administrative support roles are dynamic and changing; and, it is impossible to list every way in which the Department is involved. Suffice it to say, that on all fronts, the Department of Surgery is totally supportive of the USU community and continues to enthusiastically participate in the entire spectrum of research, teaching, clinical endeavors, medical readiness, administrative support and community service.

Individual Contributions.

Colonel David Burris, MC, USA, Associate Professor and Interim Chair, USU SOM Department of Surgery, received invitations to serve as a Visiting Professor at prestigious universities, including Harvard and Stanford. He was also the Key Speaker at the Massachusetts Chapter of the American College of Surgeons. Doctor Burris has assumed the responsibility for the completion of the Combat Surgical Manual, which replaces the former NATO Handbook. Doctor Burris is also the Chief Editor of the *Festschrift Papers* to be published in the World Journal of Surgery.

Norman M. Rich, M.D., FACS, Professor and Founding Chair, USU SOM Department of Surgery. The 2003 National Safety Council Surgeon's Award for Services to Safety was presented, this year, to **Norman M. Rich,** who, as the citation specifies: ***for 35 years has devoted his professional life to the prevention of battlefield injuries and mortality through research, education of students, residents, and surgeons, and through distinguished military and public services as the Founding Chair of Surgery at the Uniformed Services University of the Health Sciences.*** In addition, Doctor Rich delivered the Stanford University School of Medicine 4th Annual Emile F. Holman Lecture in Surgery, *Vascular Trauma: Reflections and Projections*, on March 7, 2003. Doctor Rich also delivered the Loyal Davis Lecture at North-Western and the Hunter Holmes McGuire Lecture at the Medical College of Virginia. Additionally, he received the Carol J. Johns Medal, during the 2003 USU Commencement Exercises.

Colonel Michael R. Marohn, USAF, DO, FACS, Associate Professor, USU SOM Department of Surgery, received the United States Air Force Society of Air Force Clinical Surgeons Excalibur Award for 2003.

Doctor Hasan Alam, M.D., FACS, Assistant Professor, USU SOM Department of Surgery, USU Trauma Readiness Research Institute, was inducted into the Society of University Surgeons, during 2003. In addition, during April of 2003, Rear Admiral Robert D. Hufstader, Jr., the Medical Officer of the Marine Corps, honored the USU faculty and staff who tested the nemostatic agent, *QuikClot*, so that it could be included as a lifesaving item in Marine aid-packs. In a small ceremony at USU, on April 16, 2003, Admiral Hufstader recognized Colonel David Burris, Interim Chair, USU SOM Department of Surgery, and Doctor Hasan Alam, Principal Investigator, for their thoroughness and speed in testing a critical product, prior to its use on the battlefield.

David C. Wherry, M.D., Professor, USU SOM Department of Surgery. The Philippine Chapter of the American College of Surgeons presented a Certificate to **David C. Wherry** as a *MOST DISTINGUISHED FELLOW*, in 2003.

John F. Potter, M.D., Professor, USU SOM Department of Surgery, Director, United States Military Cancer Institute, was designated by the Deputy Assistant Secretary of Defense for Clinical and Program Policy, as the DoD Representative to the National Dialogue on Cancer (NDC). The NDC consists of a group of delegates from academia, government, and the private sector; it is committed to advancing the cause of cancer research, prevention, and patient care.

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ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE
Publications Summary
1999-2003

Journal Supplements

2002

Seed TM, Blakely WF, Knudson GB, Landauer MR, McClain DE (eds) (2002) Proceedings of the International Conference on Low-Level Radiation Injury and Medical Countermeasures, Bethesda, MD, November 8-10, 1999. Military Medicine, 167(2). Foreword and preface.

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